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Canada Lumberman & Wood Worker

Time is Money

The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.

Swell Weld Coil Chain

Made in Canada **Sold by Jobbers**

25% More Weld — 25% More Strength — 25% More Wear

McKinnon Chain Company
BUFFALO, N. Y. ST. CATHARINES, ONT.

SAW MILL SUPPLIES

There is not a jobber or manutacturer, or any other person employed by either, in an official position who should miss the chance of looking over our new Catalogue on Transmission Supplies.

If you are looking for "Quality and Service" in your mill supplies we know you will be impressed with the lines shown.

Send a post card for it to-day and you will have it by return mail.

DICK'S Balata Belting — Leather Belting — Wood Split Pulleys — Shafting — Hangers — Iron Pulleys — Steel Pulleys — Clutches — Babbitt — Wood-Working Machinery — Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales — Fairbanks-Morse Gas Engines — Safes and Vaults

Montreal — Toronto — St. John, N.B. — Winnipeg — Calgary — Vancouver

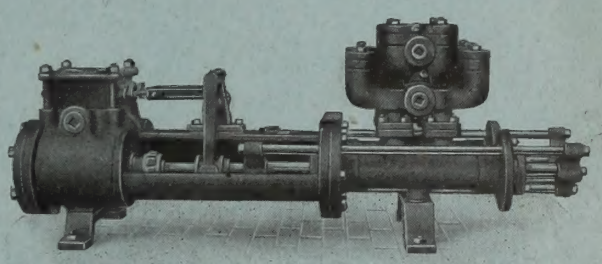
TURN INTO MONEY

Your slow and doubtful book accounts—HAND them to the COLLECTION DEPARTMENT of the Mercantile Agency

R. G. Dun & Company
70 Bay Street, Toronto

The Collection Service, which has been proved most satisfactory by all users of it, is open to Reference Book Subscribers. Subscription and Collection Rates on application.

Over Seventy Years Record of Efficiency

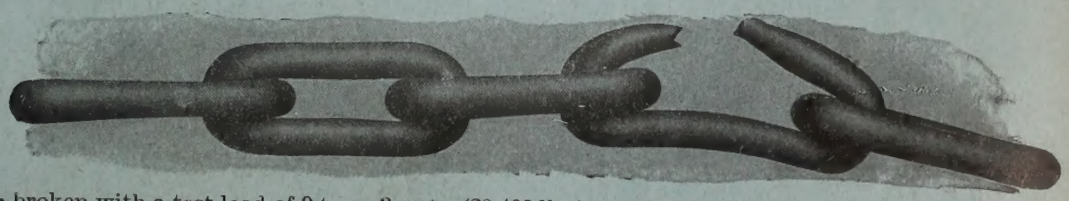


Triplex Power Pumps, Vacuum Pumps, Condensers

The Smart-Turner Machine Co., Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"



Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

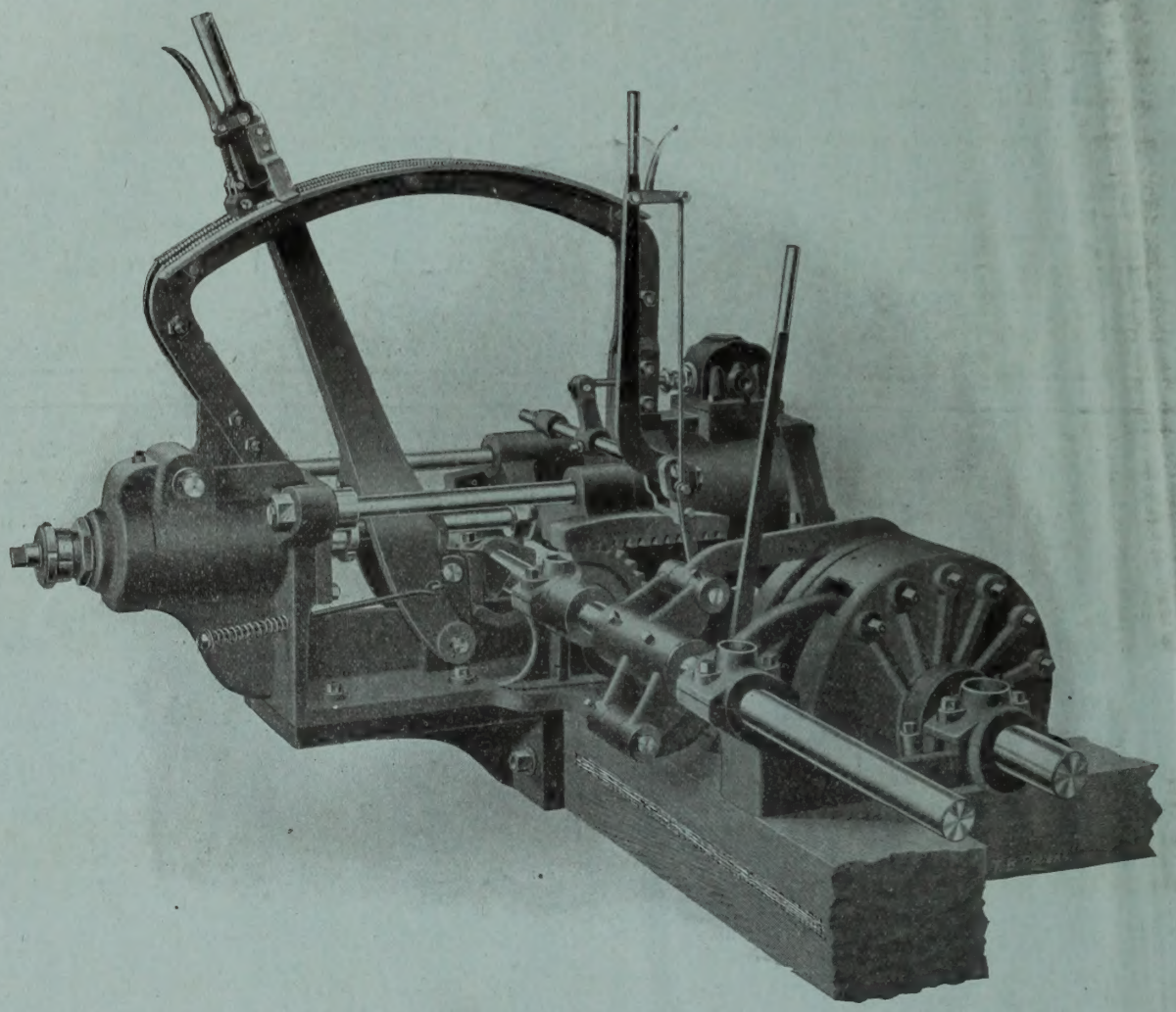
CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

Alphabetical Index to Advertisers, page 60

Did you ever really figure what it means to you to increase your cut 2,000 feet per day?



That is, increase it 2,000 feet per day without adding to your cost of sawing.

Or, in other words, what effect will it have on your profits if you can distribute your overhead charges and wages over an output 2,000 feet per day greater than it is now?

If you haven't figured it out, take your pencil and try it now.

You know how much it costs you to run your mill every day—divide that amount by the number of thousand feet per day in your present output—add 2,000 feet to your present output and divide your daily cost by that amount—and the difference between the two results represents the saving per thousand feet in your operating cost.

Then multiply that figure by your total output per season—and we think the result will surprise you, if you have never looked into this before.

This is just one of the ways in which our FOUR INCH STEAM SET WORKS will make money for you, and it will do just this because the users themselves have written us stating that they have increased their cut ***upwards*** of 2,000 feet per day.

May we send you further information about this Steam Set works?

William Hamilton Company, Limited

PETERBOROUGH - ONTARIO

RED and WHITE PINE

VIEW OF MILL PROPERTY AT CACHE BAY, ONT.

QUALITY Our Watchword

The finest pine timber in Northern Ontario and mills equipped in the most modern way enable us to turn out timber that is strictly "up to the minute." Send up your next order for

Norway or White Pine Lumber, Railroad and Structural Timbers, Flooring, Ceiling, Moulding, Siding, Cross-arms, etc.

Daily Capacity of Mill 190,000 feet of lumber, 65,000 pieces of lath, exclusive box boards and pickets.

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

JOHN GILLIES
President

DAVID GILLIES
Vice-President

J. S. GILLIES
Sec.-Treas

Established
1873

GILLIES BROS. Limited

Mills & Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

Cedar Shingles and
Railway Ties

RED PINE, SPRUCE, HEMLOCK, CEDAR

Planing Mill, Yard & Office
MORRISTOWN, N.Y.

CAPACITY 40,000,000

New York City
Guy E. Robinson, 1123 Broadway

The

Georgian Bay Lumber Co.

Limited

Waubaushene, Ontario

Manufacturers of High Grade

Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

White Pine
Red Pine
Spruce
Lumber and Lath

Office, Castle Building 53 Queen St. Ottawa, Can.

F. N. WALDIE, President. R. S. WALDIE, Vice-President. W. E. HARPER, Secretary.

The
Victoria Harbor Lumber Company
Limited

Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont. Head Office, 12-14 Wellington Street East, TORONTO, ONT.

The Buzz of Saws Herald the Start of New Activities

We urge the importance of sending orders in promptly.

New stock will not be in before July—and the present supply is rapidly decreasing.

You are better assured of your order being filled as desired now than later.

Remember, uniformity of grade is our constant aim. And lowest prices possible, consistent with quality.

The mills are all running after the winter season. Better check up your needs in

WHITE PINE

—splendid stock, guaranteed well watered. We supply the finest grades only, in assorted sizes. RED PINE also.

ABOUT SPRUCE

There's satisfaction in ordering Quebec-grown Spruce, the kind we feature. Large supply always ready for immediate shipment.

☞ *Let Us Hear From You* ☜

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 1200 Claremont Ave., MONTCLAIR, N.J. **Hope Chambers, OTTAWA, CAN., Head Office**

Timber Limits for Sale on Georgian Bay

The undersigned offer for sale in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; Tug Scow and other Lumber Equipment, including boom chains, plows, sleighs, etc.

The Limits, part of which have recently been sold, include: 440 square miles of licensed and deeded Pine, Hemlock, Spruce, Birch and other timber. The licenses from the Ontario Government include all timbers and are not restricted for time. Government dues are as follows: Saw Logs, White Pine, $1.50 per M. ft., B.M. Saw Logs, Hemlock, Tamarac and other woods 75c. per M. ft. The timber is situated in the Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street. The Canadian Pacific, Canadian Northern and Grand Trunk Railways run through the limits, which makes some of the parcels offered for sale particularly desirable for small mill owners.

A circular giving full information, maps, terms and conditions of sale will be furnished upon application to

The Parry Sound Lumber Co., Limited

1315-20 Traders Bank Building, TORONTO, CANADA

THE trend of trade is now towards our **CUTLER** Mills, when customers want anything at **BAY** ports for water or rail delivery, and our **LUMBER** is selling itself by repeat orders from any **COMPANY** to whom we make a shipment. Our stock is **LIMITED** but we still have a goodly quantity to dispose of at prices worth while considering.

DON'T BUY TILL
YOU GET OUR
PRICES

The Eyer Lumber Co.
34 Victoria Street, Toronto
are Selling Agents

The Rideau Lumber Co., Limited
Trafalgar Building, Ottawa, Ont.

We can offer nearly all sizes in Dry Spruce

Our 3″ x 7 and up White Pine Mill Culls resaw nicely.

Factory Strips and Sidings all thicknesses in White Pine

18″ Cedar Shingles

'RED DEER'
Hardwood Flooring

is the flooring that is manufactured expressly to supply the demand for the best. It is made by modern machinery, from carefully selected stock, and every precaution is taken throughout our entire system to make it fulfill in every particular the name we have built up for high quality flooring.

We also manufacture Hemlock, Bill Stuff, Spruce and Hardwood Lumber

We specialize in prompt shipments

The Muskoka Wood Mfg. Co., Limited
Huntsville, Ont.

Knowles & O'Neill

WHOLESALE

Lumber, Ties, Pulpwood
Etc.

COMPLETE STOCK OF
Quebec Spruce and Pine Lumber
ALWAYS ON HAND

An exceptionally nice lot of 2″ Pine, well seasoned, for sale, also 1″, 2″, 3″ Spruce, Square and Waney Spruce and Cedar.

Correspondence Solicited. Room 4, Hochelaga Bank Building **Quebec, Que.**

The Golden Lake Lumber Co.
Limited

MANUFACTURERS OF

Lumber, Lath and Shingles

Offer at LOW FIGURE for QUICK sale:

80,000′ 2 x 4 & up 6/16′ No. 1 White Pine Mill Cull
20,000′ 2 x 4 & up 6/16′ No. 2 White Pine Mill Cull
18,000′ 1 x 4 & up 6/16′ Log Run, Dead Culls out White Birch
125,000 pcs. 1½ x ⅜ x 32″ Mill Run Hemlock Lath

All of above, shipment G. T. R. from Golden Lake, Ontario

Head Office: - EGANVILLE, ONT.

JAS. PLAYFAIR D. L. WHITE

PLAYFAIR & WHITE

Manufacturers and
Wholesale Dealers

Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

Long Lumber Company
Hamilton, Canada

Our Specialty

Norway and Yellow Pine
BILLS STUFF TO ORDER

Ontario Agents for
A. Cotton's XXX B.C. Shingles
10 Cars in Transit

Cameron & Co, Limited

Manufacturers

LUMBER, LATH, SHINGLES, TIMBER, POLES and POSTS

We have for quick shipment

— DRY —

1" WHITE PINE MILL CULLS
1" " " BOX

Mill and Yard
OPEONGO, ONT.

Head Office
OTTAWA, ONT.

Send your enquiries to our Head Office

The McLennan Lumber Co., Limited

Everything in Lumber
Rough and Dressed
Wholesale and Retail

Want to Purchase

Dry Ash, Birch, Basswood and Rock Elm

ADDRESS
21 Dorchester Street West, MONTREAL

The Hurdman Lumber Co.

OTTAWA, CANADA Limited

EASTERN

Pine, Spruce, Hemlock, Hardwoods, Timber, Lath and Shingles

WESTERN

British Columbia Timber

at Lowest Prices and any Sizes.

Casey-Shaw Lumber Co.

Limited

Sudbury, Ontario

Manufacturers of

Lumber and Lath

Planing Mill Work

SAW MILLS
Long Lake, Ont. and Blezard, Ont.

GENERAL OFFICE
Sudbury, Ont.

Williams Lumber Company

Wholesale Dealers in

White and Red Pine, Spruce and Lath
ROUGH OR DRESSED

For 1 x 4 and up x 6/11 ft dressing shorts.
For 5, 6 and 8/4 x 12/16 dressing strips.
For 5, 6, and 8/4 shipping cull shorts, strips and sidings.

Write us before placing your orders

18 CENTRAL CHAMBERS - OTTAWA, ONT.

Edward Hines Lumber Co.

(BRANCH OFFICE)

Owen Sound, Ont.

All grades of

WHITE PINE

and

Norway Dimension Bill Stuffs

WHITE and RED PINE LATH

WILLIAM H. BROMLEY

Wholesale Lumber

Aux Sable River Forest Reserve Timber Produces Best Lumber in Ontario.

Every lumber dealer and consumer in Western Ontario, Buffalo, Detroit, Central New York and Montreal knows what excellent lumber is produced from Playfair & White's mills at Midland, Ont. I can offer you from that point, all sizes of White Pine and Norway Pine; any quantity of the choicest lumber in the Georgian Bay district. These mills will commence sawing about May 15th.

SPECIAL:—The best block of Basswood in Ontario, estimated 2,000,000 ft. I am prepared to offer, sawn to any size required.

Other stocks of Pine, Hemlock and Spruce at Pembroke, Ottawa and Collingwood.

Quotations promptly given and enquiries solicited

Pembroke - - Ontario

ESTABLISHED 1855

THE McGIBBON LUMBER CO.

OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

JOHN MCKERGOW, President — W. K. GRAFFTEY, Managing-Director

The Montreal Lumber Co. Limited

Wholesale Lumber

Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W

WHOLESALE DEALERS

SPRUCE

13 Foot and 16 Foot

Lath and White Cedar Shingles

CHRISTY-MOIR CO.

149 Broadway, New York City

THE

Brockville Lumber Company

LIMITED

Brockville, Ont.

Morristown, N.Y.

Wholesale and Retail

Lumber, Lath, Shingles, Bill Stuff

And all kinds of SASH FACTORY and PLANING MILL GOODS.

McLennan Timber Lands and Lumber Co. Limited

Selling Agency and Dealers in all kinds of

Timber Lands

Offices: Gazetteville, N.Y.
Quebec, 138 St. Peter St.

RAILS For Tramways, Sidings, Etc. New and Second Hand

YARD LOCOMOTIVES

John J. Gartshore

58 Front St. W., TORONTO

Hardwood Flooring

End Matched, Bored, Polished and Bundled

Siemon Bros., Ltd.

WIARTON, Ont.

Office: 309 Confederation Life Bldg., TORONTO

EADIE DOUGLAS CO.
14 University St. MONTREAL

C. G. ANDERSON LUMBER CO.,
112 Manning Chambers, TORONTO, ONT.

Our Prices will Interest You

We Make the Best

Pine Doors

We Specialize in

No. 3 Pine Doors

These are produced from good sound kiln-dried lumber by expert workmen with up-to-date machinery.

Doors that will not sag warp or crack—every one thoroughly well made and guaranteed.

With our new improved equipment and organization we can manufacture large and small quantities of **No. 3 Pine Doors** at a price which meets all competition.

Rush orders given prompt attention—Complete shipments made on time. Try us with your next order for **No. 3 Pine Doors.**

THE

Pembroke Lumber Co.

Pembroke, Ontario

We Can Deliver the Goods That Sell

The easiest lumber to sell is that kind for which there is already a big demand--our

Hemlock, Pine and Hardwood

will **always** meet with a ready sale because there is **always** a demand for the best.

We are the only firm to dress and size all our hemlock lumber.

Remember this is a help—freight is a big item.

We specialize in car lots—
Write us your requirements

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

The Harris Tie & Timber Co.,

198 Sparks St., Ottawa, Ont.

Cedar Poles and Posts, Piles and Bridge Timber

Track and Switch Ties

The

North Channel Lumber Co.

Limited

Successors to

SAGINAW LUMBER & SALT CO.

MANUFACTURERS OF

Pine Lumber

Saginaw, Mich. U.S.A.

Mills at Thessalon Ont.

We Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

AUGER & SON

QUEBEC

HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.

NIACARA FALLS, N.Y.

The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

Orillia, Ont.

R. LAIDLAW LUMBER CO.

LIMITED

Toronto

Sarnia

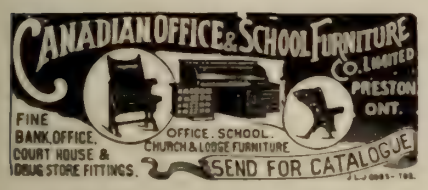
Buffalo

Imperial Timber & Trading Co.
LIMITED
VANCOUVER, B.C.
Branch Office:
15 Cadogan Block,
CALGARY, ALTA.

Every Description of
DOUGLAS FIR,
RED CEDAR, SPRUCE,
HEMLOCK, LARCH and
PINE LUMBER and
RED CEDAR SHINGLES

Heavy Construction Timbers a Specialty
Lengths up to 110 ft.
Try a car of our Extra Quality XXX RED CEDAR SHINGLES

Rail and Water Shipments.


CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS.
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

WANTED
100 m ft. clear hard Maple axles 4 in. x 5 in.-6ft. and 12 ft. long. Also all thicknesses Common and Better Birch.

For Sale
All grades and thicknesses of Cherry and Mahogany lumber. Also Mahogany, Circassian Walnut and Quartered White Oak veneer all thicknesses. Please let us hear from you.

WARREN ROSS LUMBER CO.
Jamestown, N. Y.

SPECIALTIES
Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie
Pine and Hardwood
Lumber
Lath and Shingles
North Tonawanda, N. Y.

"Well Bought is Half Sold"

STOCK OFFER;-

2 Cars	2 x 6	Com.	W. P.			$22.00
3 "	2 x 10	"	"			25.00
2 "	4 x 4	Sel.	M.	R.	W. P.	28.00
1 "	6 x 6	"	"		"	30.00

Ready for Quick Shipment

F.O.B. BYNG INLET

2 Cars 4 4" Crating Red Pine at $15.00

F.O.B. MIDLAND

3 Cars 5 4" x 4 & up No. 1 Com. & Btr. Basswood.

Runs strong to 1sts and 2nds

Early 1911 cut

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine and Hemlock Lumber

730 Traders Bank Building, Toronto, Ont.

Mills: Byng Inlet, Ont.

We are Buyers of
Hardwood Lumber
Pine and Spruce
Veneers (3 or more ply) Handles (all descriptions)
Staves Hoops Headings
JAMES WEBSTER & BRO., Ltd.
Bootle, Liverpool, England
London Office:
Dashwood House 9 Broad St., E.C.
News Chambers, 57 Hope St., Glasgow

Cant & Kemp
52 St. Enoch Square
GLASGOW
Timber Brokers
Cable Address, "TECTONA," Glasgow
A1 and A B C Codes used

Smith & Tyrer Ltd.
Agents for Shippers of
SPRUE, PINE, HARDWOODS AND OTHER WOOD GOODS.
Please Offer Stocks on hand.
26 Chapel St., LIVERPOOL

FARNWORTH & JARDINE
Cable Address: Farnworth, Liverpool
WOOD BROKERS and MEASURERS
2 Dale Street, Liverpool, and Seaforth Road, Seaforth Liverpool England

We Specialize in
Saw Mill Repair Work
and castings of all descriptions and machinery built to order.
Second hand machinery little used:
1 Northey gear drive pump 7" × 12'
1 Northey 6 H. P. Stationary Gasoline Engine
1 Autmobile 20 H. P. 2 cylinder
Suitable for truck
Maass Bros.,
Irving Ave., Ottawa, Ont.

Advertise
in the
Wanted and for Sale Department

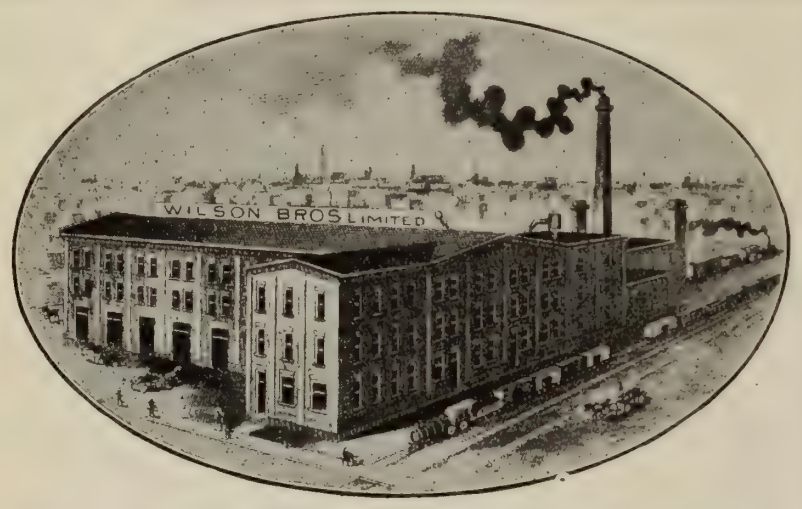
Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office: — Pacific Building, VANCOUVER, B. C.**



Send along your Orders

—FOR—

Doors, Sash, Wood Turnings
Interior Finish
Hardwood Flooring
Pine Flooring

EVERY ONE A GOOD SELLER

Wilson Brothers, Limited

COLLINGWOOD, ONTARIO

Wm. Milne & Son, Ltd.

Manufacturers:

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.
Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

Spanish Mill

White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel shipment only.

THE
M. BRENNEN & SONS MFG. CO.
HAMILTON, ONT.

MATCHING, DRESSING AND RE-SAWING

done in transit at lowest prices. We are equipped to dress and bore heavy Georgia Pine Timbers.

Hardwood Lumber

We have the following for sale:

500,000-ft. 1-in. to 4-in. Birch half ready for shipment in July.
350,000-ft. 1-in. to 2-in Basswood Michigan Stock, nice and bright, No. 2 C. and B.
30,000-ft. 2-in. Birch dry stock, No. 1 common and better last years stock.
30,000-ft. 2-in Hardwood Maple two years old, No. 1 C. & B.
250,000-ft. 1-in. to 4-in. Michigan Maple hard No. 2 C. & B.
45,000-ft. 1-in. Ash No. 1 common and better dry.
30,000-ft. 3-in. Soft Elm for quick shipment only cut in March

Glengarry Lumber Co.

Berlin, Ontario

TORONTO WHOLESALERS

Full Stock Dry Pine and Hemlock

BILLS IN PINE AND HEMLOCK

Cut to Order

NEW TELEPHONE ADELAIDE 1783

The Fesserton Timber Co., Limited

15 Toronto St., TORONTO

Mills at FESSERTON, ONT.

JOHN DONOGH & CO.

Wholesale Dealers

—DRY STOCK—

WHITE PINE—

Inch Mill Cull Sidings. 2 x 8 & 2 x 12 Common and Dressing.

SPRUCE—

1 x 4-5-6-7, Common and better. Rough or Dressed.

1205 TRADERS BANK BUILDING, TORONTO

C. A. Larkin Lumber Co.

Limited

Wholesale

Pine and Spruce Lumber
B.C. Red Cedar Shingles
N.B. White Cedar Shingles
Ontario White Cedar Shingles

Toronto :: Canada

Do You Want a Salesman?

¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

LEAK & CO., LIMITED

18 Aberdeen Chambers

TORONTO, ONT.

We are in the market for Hemlock, Spruce and Hardwoods, also No. 1, 2 3 Lath.

Send us list of anything you have to offer.

Spears & Lauder

OFFER

One Million feet, Birch, Basswood, Ash, Elm and Maple

now being cut from exceptionally choice logs.

Also during the Summer months 2½ million feet of hemlock.

LET US QUOTE YOU ON YOUR REQUIREMENTS.

Head Office: 501 Kent Bldg., - TORONTO

The

Elgie & Jarvis Lumber Co.

Limited

18 Toronto St., TORONTO, ONT.

We offer for prompt shipment,—

5 to 8 cars, 5/8 Pine or Spruce Crating.
4 to 5 cars, 1½ x 10 & 12 Selected White Pine
4 to 5 cars, 2 x 10, 10/16 No. 1 Spruce
10 to 15 cars, 1 x 10 & 12 No. 1 White Pine Mill Cull
2 cars, 2 x 4 & up, Clear and Clear Face Norway

Close prices for prompt shipment.

C. G. ANDERSON LUMBER CO.

WANTED

Mill Stocks of :—

HARDWOODS
PINE
SPRUCE
HEMLOCK

We are now buying for the 1912 trade. Write us describing Stocks you have, or will have to sell. We pay CASH.

Manning Chambers TORONTO

E. H. Heaps & Co., Limited

Lumber, Shingles, Doors, Mouldings, Finish, etc.

Specialties: AA1 BRAND HIGH GRADE SHINGLES
B. C. R. DOUGLAS FIR TIMBER

Mills at
Vancouver and Ruskin, B. C.

Head Office: Victoria Drive and Powell St.
VANCOUVER, B.C.

For low prices and prompt shipment of
Yellow Pine Timbers
Short Leaf Finish
Chestnut --- Oak --- Ash
Cypress
New Brunswick Shingles
TRY

Fred S. Morse Lumber Co.

Box 1600 SPRINGFIELD, MASS.

Pine Larch

THE HALL MARK OF QUALITY

Selects
Shops
Commons
and
Mouldings

Timbers
Yard Stock
Clears
and
Mouldings

The East Kootenay Lumber Co. Limited

Head Office: JAFFRAY, B.C.
Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

High Efficiency Mill Supplies

The installation of efficient mill equipment will reduce the working cost of any mill to a minimum.

We specialize in the very best Mill Supplies

Here are a few of our lines:

Balata Belting—We sell only the best viz., "Vinco." You cannot afford to buy anything else.

Flexible Metallic Hose—For conveying Steam, Gas, Air, etc. All sizes kept in stock from ¼" to 2".

Steam Packings—To suit all conditions. Tell us your requirements. We will ship you goods that will prove a saving in trouble and cost.

Asbestos—Gaskets, Sheet, etc., we carry in large quantities. Special sizes, gaskets, etc., made up on shortest notice.

Prompt Delivery **Highest Quality**
Reasonable Price

The Asbestos & Rubber Goods Co. Limited

141 King St. East TORONTO
Branch: 43 St. Francois Xavier St. MONTREAL

The Rat Portage Lumber Co., Ltd.

(With Mills at Winnipeg, Man. Vancouver, B.C. Harrison River, B.C. Kenora, Ont. Rainy River, Ont. and Banning, Ont.)

Manufacturers of

LUMBER, LATH, SHINGLES, SASH AND DOORS

And all kinds of Woodwork and Interior Finish. Also Box Shooks and Packing Cases. White and Red Pine Lumber, Maple Flooring, Hardwood Lumber, Turned and Band Saw Work, Cedar Posts and Poles, Tamarac, Piling, etc.

ADDRESS HEAD OFFICE **The Rat Portage Lumber Co., Limited - Winnipeg, Man.**

D. C. CAMERON, President and General Manager.

Lumber of Uniform Quality

Fassett Lumber Co.—General View of Saw Mill

Standard uniform quality is the Keystone of our success. If you are not acquainted with the superior merits of our lumber let us send you a sample car of

PINE, HEMLOCK SPRUCE or HARDWOOD

We have also a splendidly equipped planing mill and dress lumber to order.

LONG TIMBERS
A Specialty.

Fassett Lumber Company, Limited

FASSETT, QUEBEC

PENATANG SHOEPACKS

Gendron Penatang Shoepack Mfg. Co.

Sole Manufacturers, Penetanguishene, Ontario

Two of Our Twenty Different Styles

Our Temiscaming Shoepack is made with a good waterproof Oil Tan foot, soft Mennonite Grain or light Oil Tan leg, large eyelets, and with or without hooks, as desired. This pack is suitable for all seasons, but is especially adapted for hard-freezing weather. It will not freeze.

Temiscaming, Sample No. 10

The Lumber King, with sole running through to heel, is more to be worn in early season. Will stand every sort of rough usage, such as is met with in the fall or in the spring.

Both styles made with or without soles and heels.

MANUFACTURED BY J.G.GENDRON PENATANG PENETANGUISHENE, ONT TRADE MARK REG'D

Send for Catalogue

Lumber King, Sample No. 11

FOR QUICK SHIPMENT

we offer the following stocks

A few cars left of:

5/4 x 6/8/10 No. 1 and 2, Barn
6/4 x 6/8/10 No. 1 and 2, Barn
200M 1″, 1½″ and 2″ x 12—12/16 Spruce
100M 3 x 10—10/16 Spruce
1″ x 4″, 5″ and 6″ No. 1 and 2, Barn
1½″ x 4″, 6″, 8″ x 10″ No. 2, Barn and Better
From Small Logs

1″, 1¼ and 2 x 4,—10/16′ Spruce, rough or dressed
“ “ 2 x 5, “ “ “
“ “ 2 x 6, “ “ “
“ “ 2 x 7, “ “ “
“ “ 2 x 8, “ “ “
“ “ 2 x 10, “ “ “
“ “ 2 x 12 “ “ “

A choice lot of 1″ Ash and winter sawn 1″ Basswood; also Birch Flooring in all grades and thicknesses.

We can supply you all your wants in Pine.

DRESSED LUMBER OUR SPECIALTY

Write, wire or 'phone us for prices before placing your orders.

W. C. Edwards & Co., Limited

Ottawa, Ont.

Mills at Ottawa and Rockland **Planing Mills and Factories at Ottawa**

“EVERYTHING IN LUMBER”

Why not make 1912 the most profitable saw year in your history?

ATKINS STERLING BAND SAWS

Made in Canada

THESE Saws are celebrated on account of their exceedingly tough temper and generally scientific construction. They will stand up to their work longer under the most trying conditions. You will find fewer cracks in ATKINS BAND SAWS than any other and they will hold their teeth and points remarkably. Why not place a trial order and make us prove these statements.

Write to-day

E. C. ATKINS & CO., Makers of STERLING SAWS HAMILTON, ONT.

Vancouver Branch, No. 109 Powell Street, **U. S. Factory, Indianapolis, Ind.**

Pine Doors of All Kinds

KEPT IN STOCK FOR IMMEDIATE SHIPMENT

The above is a partial line of Doors carried in stock in all the standard sizes for quick shipments.
We are the largest manufacturers of Doors in Canada and operate our own sawmill and timber limits.

We can save you Time and Money. Write us.

JAMES DAVIDSON, - OTTAWA, Ontario

GARLOCK PACKINGS

Garlock Regular Rings

For all general purposes outside of high pressure work. This Packing is a special grade thoroughly lubricated with the celebrated "Garlock" compound, and is the perfected result of over thirty years experience in manufacturing fibrous Packings.

Garlock Square Duck Packing

Made of good quality Cotton Duck and friction for cold water.

Garlock High Pressure Gaskets

Absolutely heat proof, will not vulcanize or blow out under any steam pressure, being made of long fibre Asbestos Brass Wire Insertion.

Garlock Red Sheet Packing

Made of high grade Rubber compounded in such a way as to give it great strength and reliability.

This Packing has established wide reputation on its own merits.

Garlock Cloth Insertion Sheet

Used on cold and warm water pipes. Is unexcelled in pliability, smoothness of finish and strength of Cloth Insertion.

Garlock Rubber Valves

Specially made to meet specific conditions—absolutely unaffected by oils.

Before placing your next order for supplies get our prices on Leather, Rubber and Canvas Belts, Hose, Brass Valves, Babbitt Metals, Saw Blades, Files, Emery Wheels, etc. Write for catalogue.

THE GARLOCK PACKING CO.

Head Office and Factory: HAMILTON, ONT.

MONTREAL TORONTO WINNIPEG

MARITIME PROVINCES

Maritime Lumber Co.
Limited

Head Office:
Saint John, N. B.

Branch Office:
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OFFER

For Rail or Water Shipment:

1,500,000-ft. Merchantable Spruce Side Boards 1 x 4 and up.

For Rail Shipment:

600,000-ft. 3x7 and up 1st., 2nd. and 3rd. White Pine.

Donald Fraser & Sons, Limited

CABANO, QUEBEC

MANUFACTURERS OF

Long Lumber

Rough and Finished

Shingles, Clapboard, etc.

To Reach More Lumber Buyers

Canadian lumber manufacturers and wholesalers should advertise regularly and prominently in the

Canada Lumberman & Wood Worker

This paper reaches all the principal buyers of Canadian lumber at home and in Great Britain, United States, Europe, South America.

Rates on application to the head office.

220 King Street West
TORONTO - ONTARIO

Selling Mill Stock

If you desire to get beyond the retail dealer and reach the builder and the architect it will pay you to advertise in the

ESTABLISHED 1886
Contract Record and Engineering Review

the only weekly paper in Canada for builders, architects, etc.

Send for sample copies and rates to the publishers

Hugh C. MacLean, Limited
Toronto, Ontario

MARITIME PROVINCES

AUSTEN BROS. LIMITED

The Banner Machinery and Supply House of the Maritime Provinces
Are Headquarters for

Axes — Babbitt Metals
Car Movers — Emery Grinders
Wood Split Pulleys
P. T. Saws — Cant-Hooks
Peaveys — Lumbermen's Calks

DAWSON'S "LINCONA" BALATA BELTING REGD

Gauge Glasses
Scotch Yill Board — Packings

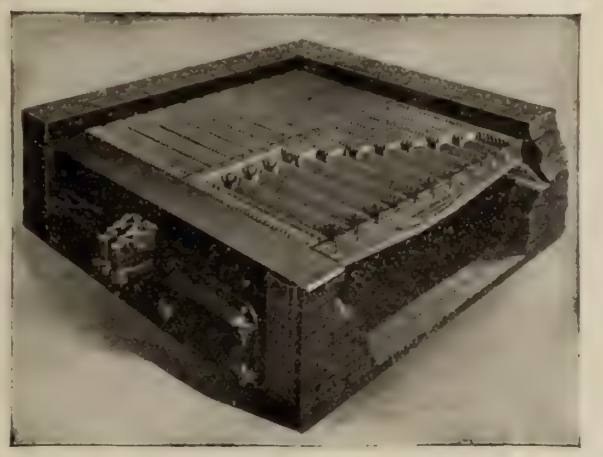
Send us your orders, we will do the rest.

HALIFAX, NOVA SCOTIA

Lower Repair Bills

You don't need to replace the whole grate, just because a small part is burnt out. Macdonald tops are removable.

MacDonald Shaking Grate



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ROBB ENGINEERING CO., LTD.

WORKS:
SO. FRAMINGHAM, Mass., AMHERST, N.S., Can.

Manufacturers of Engines, Water-tube Boilers, Horizontal Return Tube Boilers, Vertical Boilers, Shaking Grates, etc.

39 -22

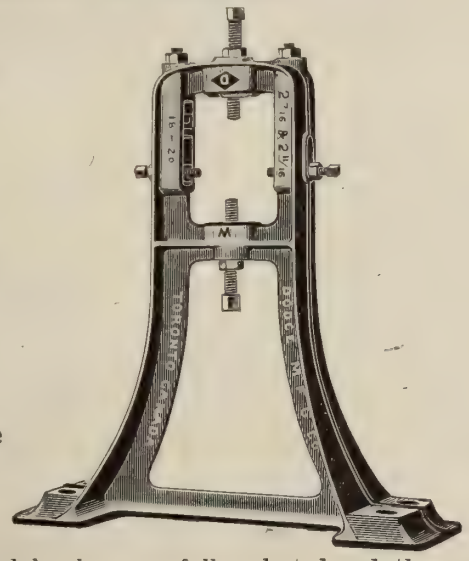
WE LEAD IN MILL SUPPLIES

IN THE MARITIME PROVINCES

We can equip your mill with everything you require and at lowest prices.

Transmission Goods:
Pulleys,
Hangers,
Shaftings,
Etc.

Crane or Pipe Fittings



Leather, Rubber and Canvass Belting

Steam Packings

Our stock has been carefully selected and the quality is guaranteed.
The manufacturers we represent are those whose names are a guarantee of the quality of their output.
We carry a complete stock and can fill orders promptly.
We are satisfied with a fair profit and give you the benefit.

GIVE US A TRIAL

GUILDFORD & SONS, Halifax, N. S.

The Enterprise Lumber Camp Range

A Large Heavy Serviceable Steel Range, specially adapted for Lumber, Mining, and Railway Construction Camps, Boarding Houses, etc.

MADE IN TWO SIZES

The largest No. 10—30 has an oven 30×26×14 and six 10 inch covers. The oven of the 9—24 measures 24×26×14. The Tops of both are made of three heavy interchangeable Key plates. Both sizes can be fitted with waterfronts and the 9—24 with a 15 gallon copper reservoir tinned on the inside to prevent rust. Size of pipe collar 7½ inches. Length of wood fire box 31 inches. The body is of very heavy Bessemer Sheet Steel and is well braced and strengthened, Castings are made of the highest grade of pig iron.

Burns Coal, Coke or Wood **Send for Illustrated Circular**

The Enterprise Foundry Co., Sackville, N. B.

Mfrs. of High Grade Stoves, Ranges, Furnaces and Fire Place Fittings

Sold by: Fred J. C. Cox & Co., Winnipeg, Calgary, Edmonton. Enterprise Hardware Co., Saskatoon. W. T. McArthur & Co., Vancouver

Place Your Dimension Orders Early

White and Red Pine, Spruce, etc., Bills, any Size, any Length

ROUGH OR DRESSED

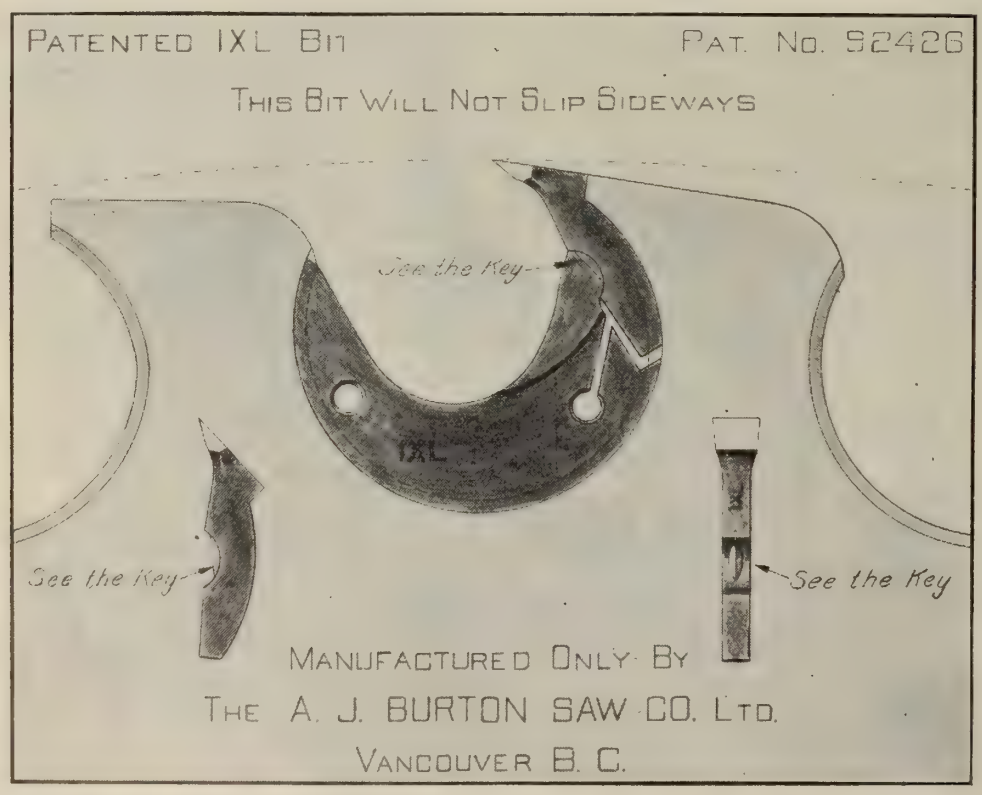
East Entrance, No. 2 Yard

We still have a few cars each dry 1 x 12, 1½ x 12 and 2 x 12 x 12/16 for sale.

Fast Feed Planing Mill in Connection

The Colonial Lumber Co.

Pembroke, Ont.



Our Inserted Saws are Fitted with our Patent I.X.L. Bits and Shanks, warranted not to slip sideways, and to cut free and easy, and have no equal in hardwood or any other timber.

Saws Band, Gang, Solid and Inserted Tooth Circulars, Bits and Shanks

Carried in Stock at our Ottawa Branch. Special Attention given to all Saw Repair Work.

The A. J. Burton Saw Co., Ltd.

HEAD OFFICE AND FACTORY
VANCOUVER, B. C.
BOX 848
Phone 1748

EASTERN OFFICE, SALES-ROOMS AND REPAIR WORKS
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HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

Phone Main 6386

Mills: Knoxville, Tenn.
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The Atlantic Lumber Co.

Incorporated

Head Office: BOSTON, MASS.

Manufacturers Southern Hardwood Lumber

Canadian Branch

211 Kent Building, 156 Yonge Street, Toronto

Robert Vestal, Manager

ANYTHING IN OAK LUMBER

We have the following stock we are anxious to move, let us quote you on it:

250,000 ft. 1 in. No. 2 Com. and Btr. Basswood
1,000,000 ft. 1 in. No. 2 " " Hard Maple
40,000 ft. 1 x 4 in. 1 face and 2 faces Clear Birch Strips
50,000 ft. 2 in. 1sts and 2nds Unselected Birch
400,000 ft. 1 in. No. 1 Com. Unselected Birch
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100,000 ft. 1 in., 10 and 12 ft. Moulding Birch

Other Northern Hardwoods in complete assortments

BRADLEY TIMBER & RAILWAY SUPPLY CO.

Second Floor Palladio Bldg., DULUTH, MINN.

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

Wistar Underhill & Nixon

Real Estate Trust Bldg., Philadelphia, Pa.

Canadian Rep. - W. J. Anderson, 288 South St., London, Ont.

Pearl City Veneer Company

JAMESTOWN, N.Y.

Manufacturers of

Veneers and Panels

IN ALL THE NATIVE WOODS

Three Ply End Panels, Drawer Bottoms and Glass Backs a Specialty

LET US QUOTE YOU PRICES

Factory and Office, Steele St., Jamestown, N. Y.

Our shipping facilities for Canadian Trade cannot be equalled.

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buy your Hardwoods direct from

THE MANUFACTURER

Can Furnish Anything In---

Kentucky's Best

- Quartered White Oak
- Quartered Red Oak
- Plain White Oak
- Plain Red Oak
- Poplar
- Walnut
- Hickory
- Ash

Mixed cars furnished at same prices as straight cars.

J. V. STIMSON & CO.,

OWENSBORO, Kentucky

Yellow Poplar

MANUFACTURERS WATER SEASONED, BAND SAWED POPLAR LUMBER

All Grades Quick Shipments

COAL GROVE, Ohio, U.S.A.

Lumber Co.

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

LELAND G. BANNING

Manufacturer of

SOFT OAK

Mills: WILMINGTON, O. / FRANKFORT, KY. / SALISBURY, N.C.

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Canadian Representative, A. E. KLIPPERT, 11 Laxton Ave., TORONTO

Manufacturers of Foreign and Domestic Hardwood Lumber and Veneers.

Ohio Veneer Company

— Importers of —

MAHOGANY AND FOREIGN WOODS

Office and Mills: 2624 to 2634 Colerain Ave., CINCINNATI, OHIO.

R. A. Wells Lumber Co.

Wholesalers and Exporters of

Hardwood Lumber

of All Kinds

Special attention to Canadian trade. Prompt Shipments

Our speciality is 1″ to 2″ Gumwood, 1″ to 2″ Oak, both plain and quartered stock, 1″ to 2″ Ash and 1″ Cottonwood.

WRITE US BEFORE BUYING

230 S. LA SALLE STREET - CHICAGO, ILL.

THE SOUTHERN LUMBER AND BOOM CO.

SALES OFFICE, CINCINNATI

Band Mills: Valleyview, Ky., Glendora, Miss.

Manufacturers

OAK — GUM
POPLAR — CHESTNUT
ASH — CYPRESS

Lower Michigan Hardwoods

Rock Maple, Beech, Birch, Basswood and Ash, White Rock Maple Flooring and Hardwood Dimension

We have four large mills, sawing the year round on Virgin Hardwood Timber. We can furnish you any standard grade or thickness. We own our own fleet of boats and can make water shipments. Send us a list of your wants. We can serve you best.

W. H. White Company Boyne City Lumber Co.
Wholesale Yards at Buffalo, N.Y.
Mills at Boyne City, Michigan

Duhlmeier Brothers Manufacturers Hardwood Lumber

MILLS { Kentucky, Tennessee, Mississippi.

Main Office and Yards { CINCINNATI, OHIO

We now have in stock dry and ready for prompt shipment 500,000 ft. of 1-in., 1¼-in., 1 1/2 and 2-in. plain Red Oak, nice soft texture, good widths, good lengths. Also a nice stock of Red and Sap Gum, Plain and Quartered Cut Oak. Let us quote you delivered prices.

OUR LUMBER IS MANUFACTURED RIGHT AND GRADED RIGHT. WE CAN SHIP QUICK.

Eastern Representative **James H. Walsh,** 95 W. Mohawk St., Buffalo, N. Y.

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United States Manufacturers and Wholesalers seeking Canadian Business

Long-Knight Lumber Co.

Manufacturers Indiana and Southern

Hardwoods

OAK, ASH, CYPRESS Our Specialties

Address all inquiries to the Main Office at—

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Theo. Fathauer W. M. Hopkins

Theo. Fathauer Co.

WHOLESALE HARDWOOD LUMBER

Our Specialties

Plain and Quartered White Oak. Figured and Plain Red Gum

Southern Yard - **Helena, Ark.**

Address correspondence to

1428 Cherry Ave., Chicago

YARDS: ORLEANS, IND.; FORT WAYNE, IND.; PAOLI, IND.

S. P. Coppock & Sons' Lumber Co.

Manufacturers of and Dealers in

Hardwood Lumber

Indiana Quartered Oak
Ash, Basswood, Poplar

Main Office - FORT WAYNE, IND.

OUR SPECIALTY:

Anything in HICKORY LUMBER

Canadian Representative, MR. S. D. SMITH

W. M. Ritter Lumber Co.

Manufacturers - Columbus, Ohio

Let us quote you on your requirements in any of the following West Virginia stock:

Soft Yellow Poplar, Plain and Quarter Sawed Red and White Oak, Chestnut and Basswood

All Grades and Thicknesses in Stock Dry.

We especially want to move during next thirty days and will make attractive prices on—

5 Cars 4/4 1st and 2nds Quarter Sawed Poplar
5 Cars 4/4 Quarter Sawed Sound Wormy Chestnut
3 Cars 4/4 1st and 2nd Chestnut
1 Car 5/4 " " "
2 Cars 6/4 " " "
8 Cars 4/4 to 8/4 No. 1 Common Chestnut
5 Cars 4/4 1st and 2nd Sound Wormy Chestnut
3 Cars 4/4 Sound Wormy Chestnut Veneer Strips, 3 to 6-in.
4 Cars 10/4 and 12/4 Sound Wormy Chestnut.
6 Cars 5/4 No. 1 Common Basswood,
5 Cars 4/4 Poplar 1st & 2nds., Bright Sap no Defect, 7" & up.
3 Cars 5/8 Poplar Panel and No. 1, 18 to 36-in.
4 Cars 4/4 " " " 18 to 36-in.
3 Cars 4/4 High Grade No. 2 Common Quartered White Oak.

Our stock is all band sawed and we ship the product of our mills only.

Ontario Representative, John Hall, 266 Huron St., Toronto

PHONE COLLEGE 907

W. O. King & Co.

HARDWOOD LUMBER

Our Specialties

Michigan Hard Maple, Birch and Basswood

2452 S. Loomis St., CHICAGO, ILL.

DRY BEECH

We want to move 200,000 feet 5/4—No. 1 and better dry Beech. A Snap at the Price.

Also quick deliveries on NORTHERN HARDWOODS, YELLOW PINE, OAK DIMENSION, FIR, HICKORY, OAK, CAR STOCK and PILING.

Estabrook Skeele Lumber Co.

Manufacturers and Wholesalers

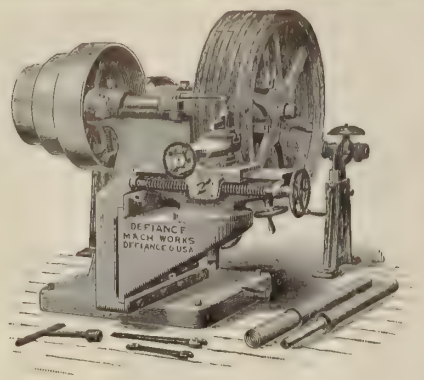
CHICAGO, ILL., U.S.A.

SUCCESSFUL MANUFACTURERS BUY

DEFIANCE

WOODWORKING MACHINES

THE IMPRINT OF SATISFACTION



Wood Pulley Lathe

WHY?

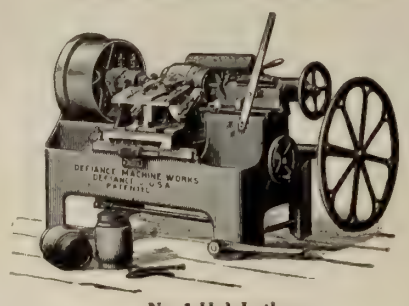
Because they are built upon correct mechanical principles.

Because they do not cost a fortune to keep them in repair.

Because they produce results that count in actual dollars and cents.

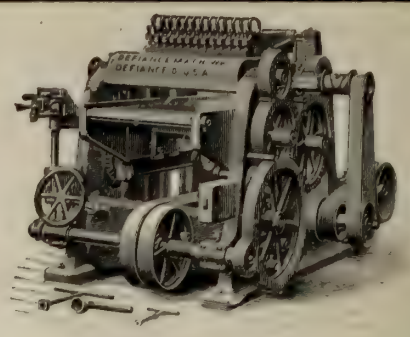
Those are only a few of the advantages in buying DEFIANCE machines.

The real secret of their superiority is in the installation.



No. 1 Hub Lathe

Write us TO-DAY for full particulars and prices.



26 Single Surface Planer

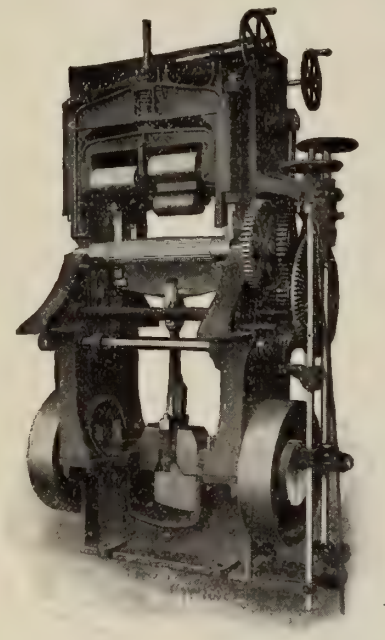
The Defiance Machine Works

426 Perry Street - DEFIANCE, OHIO, U.S.A.

Canadian Agents:—The A. R. Williams Machinery Co., Toronto, Agents for Ontario. Williams & Wilson, Ltd., Montreal, Que. A.R.Williams Machinery Co., Ltd., St. John, N B. (New Brunswick, P.E.I.) Guilford & Sons, Halifax, N.S. The Angel Engineering & Supply Co., St. John's, Newfoundland. W. L. Blake & Co., Portland. Me. (Maine, New Hampshire, and Vermont.)

BETTER LUMBER

When all has been said that can be said, every experienced lumberman will admit, not only that the Wickes Gang make the most perfectly manufactured lumber that comes from any kind of saws, but that it will saw lumber more cheaply than can be done by any other known means.



Foreign Buyers always prefer gang sawed lumber

A Canadian customer is installing a gang because he can get 75c per thousand more for gang-sawed deals. And he will not only win the 75c but further profits because of cheaper sawing and by getting more lumber from the logs.

CHEAPER SAWING

WICKES BROS. SAGINAW, MICH.

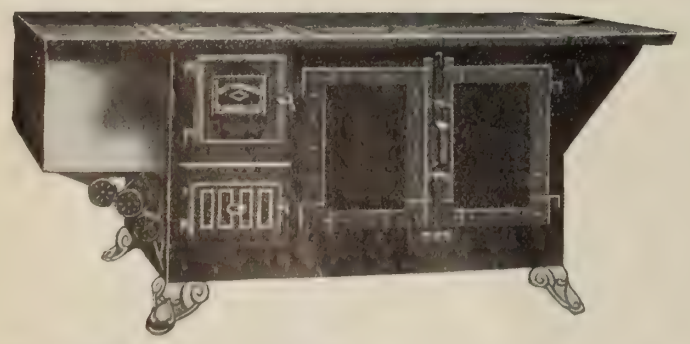
Seattle Office: 410 White Bldg.

YANKEE PATENT REMOVABLE SPLIT-RIM SPROCKET

SOMETHING NEW IN SPROCKETS

The removable rim does away with removing Sprocket from Shaft. To renew, unbolt two halves of old rim, and replace with two new halves. You only buy the Rim, at one-third cost of new Wheel. Done in one-fifth the time compared with Standard Sprocket.

The A. M. ELLICOTT CO., Montreal



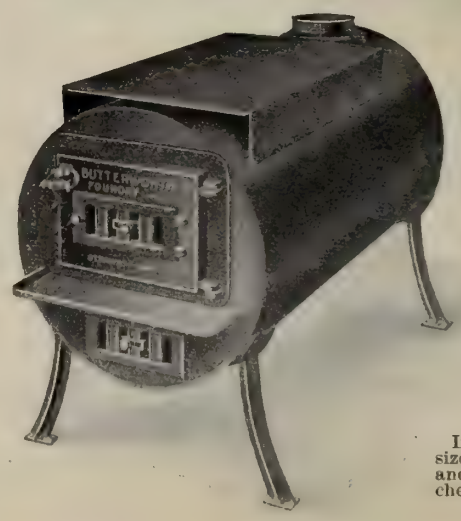
Diamond Shanty Steel Range—Six Holes. Length of fire box for wood 28 in. Size of oven 24 x 27 x 15 in. Flush reservoir as cut or high reservoir. Made of extra heavy steel closely riveted. Malleable oven door frame.

For the Camp

Camp Cooking and Baking with our Diamond Shanty is an absolute certainty, no guess work, meals always on time.

When you buy these goods you get our 30 years manufacturing experience.

A handsome Illustrated Catalogue is yours for the Asking



In three sizes, 36, 42, and 48 inches long.

Butterworth Foundry, Limited Ottawa, Canada.

GOODYEAR

Power-Saving Rubber Belting

Goodyear Rubber Belting stands for power saved and money saved. It is built up of plies of rubberized fabric cured and vulcanized into one solid piece. It neither slips nor stretches. It has the cohesiveness of rubber with the enormous tensile strength of close woven, long fibre cotton fabric from which *all stretch has been taken out.*

Goodyear Rubber Belting is manufactured by a process that makes it proof against steam, water, weather and rot. Made in all three grades and all sizes. For Pulp, Paper, Saw Mills—***all*** mills where horse power transmitted is large and demand for tensile strength great. Used by biggest lumber mills and manufacturing plants in the Dominion. ***Outlives, outlasts*** all other belts.

Rot-Proof Mill Fire Hose

Goodyear Underwriters is a hose built to meet the specifications of the Associated Factory Mutual Fire Insurance Companies. Tube used of highest grade NEW rubber. ***Won't*** harden or crack with age. Special circular woven fabric with least expansion or elongation under pressure. Antiseptically-treated to make it rot and mildew proof.

The strongest most reliable hose for all mills and factories. Insist on ***Goodyear Underwriters, the hose with the black and yellow stripes.***

Non-Chipping Conveyor Belts

Built for all purposes. For conveying crushed stone, grain, coal, ore, etc.

Made in all thicknesses of face to suit requirements of buyer. Rubber face made of toughest stock possible, to prevent cutting and chipping. Gives longest, most enduring service.

We also manufacture other rubber goods, such as tires, all kinds of hose and belting, rubber packing, etc.

Write us tonight for catalog and prices.

Our Sales of the last four months 50 per cent. greater than those of last year.
Defective goods returned only $23.93.

The Goodyear Tire & Rubber Company of Canada, Ltd.

Factory—Bowmanville, Ont.

Write Our Nearest Branch

BRANCHES: Victoria, B. C.—Vancouver, B. C.—Calgary, Alta. —Regina, Sask.—Winnipeg, Man.—London, Ont.—Hamilton, Ont.—Toronto, Ont.—Montreal, Que.—St. John, N. B.

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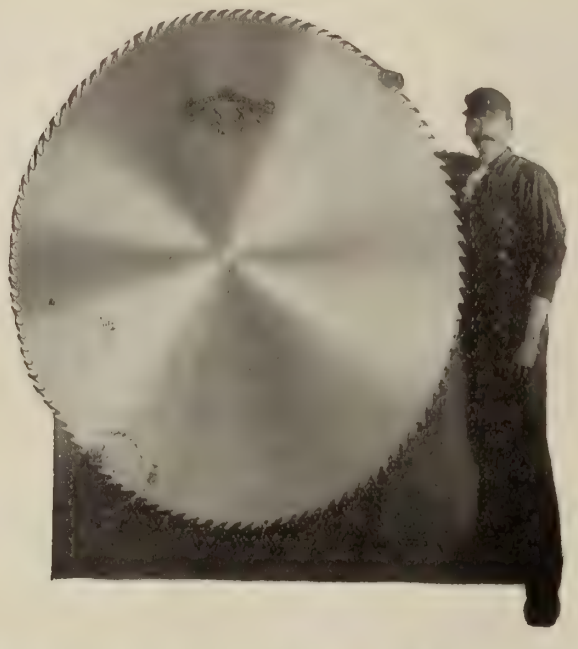

Simonds Saws

All there is to a Saw is STEEL, SKILL and STYLE.

The Steel that is in a Simonds Saw has meant that to supply it we had to build a Steel Mill comprising seven buildings which, with yards, cover 14 acres of land. This much for the demand for Simonds Steel.

The Skill that is in a Simonds Saw requires for its operation three complete factories, one at Fitchburg, Mass., one at Chicago, Ill., and one at Montreal, Que. The skill is the result of noting and accepting improvements in methods of Making Saws, as long as Saws have been made in this country.

The Style that is in a Simonds Saw comes from a close study of the style of Saws necessary for best cutting results under varying conditions. Years of experience in the Saw manufacturing business has developed an ability to select the right Saw for any particular use.

The Price that the Consumer pays for a Simonds Saw entitles him to the benefits of Simonds Steel, Skill and Style, these three together giving results or service which means profit.

If you are in the market for any kind of a Saw, Planing Knife, or file. send your order to our nearest office for our immediate attention.

Simonds Canada Saw Co., Limited

Montreal, Que.

Vancouver, B.C. - - St. John, N.B.

In the United States The Simonds Mfg. Co.

J. F. EBY
President

HUGH BLAIN
Vice-President

CAMP SUPPLIES

If you are looking for QUALITY in your Camp Supplies, you should specify:

"ANCHOR" brand—

BAKING POWDER
JELLY POWDERS
EXTRACTS, SPICES
COFFEE — TEA
(In sealed air tight packages)
Sweetened MILK Unsweetened
CANNED—
SALMON, FRUITS
and VEGETABLES

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

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Lumber Manufacturers Win the First Round

Manufacturers of lumber in Canada have great reason to congratulate themselves upon the fact that Mr. Justice Cassels in the Exchequer Court has decided in favor of their contention that lumber which has been dressed on one side and reduced to a uniform width by a further process than sawing is liable to a duty of twenty-five per cent. ad valorem when entering Canada. Readers of the Canada Lumberman are already familiar with the details of this important matter and have had little doubt that if the facts of the case were presented in their true light before Mr. Justice Cassels, the result of his judgment could only be in their favor.

From the very first moment, when this problem was brought up in the House of Commons and made the subject of an extremely bitter political discussion, attempts have been made to cloud the issue, and to make it seem as though the aggressor in the case were the lumber manufacturer. In reality the very opposite is the case, the lumber manufacturer is the man who, throughout the whole dispute, has been upon the defensive. The importer of lumber, represented by some retailers and enjoying the co-operation of the United States manufacturer, has sought to deprive the lumber manufacturer in Canada of what is beyond question his absolute right under both the wording and the intention of the Canadian Customs Act. The Act states in a manner which, to a lumber manufacturer admits of no question, that lumber which has been further manufactured than dressed on one side is liable to a duty of 25 per cent. ad valorem.

No one on either side of the House in Parliament has for a moment tried to argue that the object of this clause was other than to encourage the "further manufacture" of United States rough lumber after it had been imported into Canada. By this means it was sought to develop the wood-working industry upon Canadian soil. If lumber has been dressed on one side and reduced to uniform width by what really amounts to dressing on one edge, it requires no further manufacturing in Canada to permit it to be used for construction purposes, and if it is allowed to enter Canada free of duty, the undoubted object of this clause of the Tariff Act is defeated.

For these reasons, lumber manufacturers have been unable to believe that a just consideration of the facts of the case could result in any other interpretation of the Act than the one that has been put upon it by Mr. Justice Cassels. Unfortunately the whole situation has been dragged into the arena of politics, and when a question of tariff once reaches this stage it is invariably made to appear in the eyes of the public in such strange garbs as are incomprehensible to those who are acquainted with the particular facts. Until this question has been finally set at rest by a judgment from which there is no appeal, lumbermen will have to be content with the uncertainty at present prevailing, and also with the accusations which are levelled at them of being combined together as a trust to extort the highest possible profit from the consumer. Unfortunately the present judgment is still subject to appeal to the Supreme Court.

The Season for Forest Fires

During the end of the month of May and the early days of June, reports of forest fires were received from many parts of Canada. As a rule the serious forest fires do not occur so early in the year. Coming at the beginning of the summer this year they should stimulate all who are connected with the lumbering industry and those whose work takes them into the forests, to adopt the greatest possible amount of caution in regard to their operations. The attention which has been given to the prevention of forest fires during the last few years has given reasonable hope that in the near future there will be a far smaller number of disastrous conflagrations than there have been almost annually for many years past. There is no doubt, however, that under present conditions, the fire fighting forces employed in the different provinces might be greatly increased before anything like an adequate amount of protection would be secured.

During the first week in September there will be held at Victoria, B. C., the annual convention of the Canadian Forestry Association, and the question of the prevention of forest fires will certainly be one of the most important subjects under discussion. It would mark this convention as one of the most important meetings that has ever been held in Canada if it should adopt resolutions of a practical nature which will lead to the governments of the various provinces and of the Dominion, immediately discarding the partial systems of fire protection which have been in force in a number of provinces, and adopting measures of a far more drastic nature than any of which have yet been put into effect.

In this question of fire protection the governments have been far too prone to follow only in the steps of public opinion. By the time public opinion has been well formed on the matter it is to be feared there will be very few forests in which the fire loss has not been enormous, The duty of the governments is in fact, not to follow in the footsteps of public opinion, but to set the pace for public opinion and to out-strip it. Appropriations which have been made up to date by the governments have been ridiculously small compared to the amount of property that is to be protected. When one considers the great sums which are devoted annually to the erection of little public works in all parts of Canada, many of which are alleged to be for the purpose of pleasing constituents and holding their votes, the meagerness of the appropriations for the prevention of forest fires appears in the light of criminal neglect. In the course of a few years the governments of to-day will be judged in this particular far more severely than they are to-day. There are at present only two probable results of that judgment, either the public will commend them for having been far-seeing enough to spend their money courageously and plentifully in the protection of the forests, or they will be found wanting, and will be accused of having been too niggardly and too imprudent to realize the necessity for saving to the people of Canada one of their greatest and most important resources.

It is greatly to be hoped that when the convention of the Can-

adian Forestry Association is in session at Victoria they will not have a visible example of the destruction of forests, to accompany their session. It is not unusual, however, during the late summer and early autumn days that the air is filled with smoke which has travelled hundreds of miles from great forest fires among the valuable timbers of British Columbia. The people of Canada have become accustomed to this heavy pall of smoke and look upon it as almost an annual event. It remains to be seen whether, since the last occurrence of this nature, the activity of our governments have been sufficient to lessen the destruction during the current year.

Government Laboratory Needed for Wood Utilization Study

Many of the more progressive lumber manufacturers in Canada have devoted much of their time to studying the economical uses of their timber. The progress which has been made by individual manufacturers in this direction of late years, has been encouraging and the result has been a remarkable improvement in the profits of firms which have seen the wisdom of this course. Individual firms, however, are seriously handicapped in making a study of this nature. The cost involved is so great as to make it impossible for them to more than touch the fringe of the problem. In numerous cases they have gone quite far enough to be convinced that present methods of utilization are extravagant, and to see that, in order to arrive at definite and profitable information, it would be necessary for them to expend more time and money upon the problem than their resources would justify. The problem is essentially one for the government of the country to approach; not only on account of the initial cost being too great for the individual, but on account also, of the direct financial interest of the government, in the successful development and utilization of the forest resources of the country.

In the United States an experimental laboratory for the study of woods has been established, which is doing excellent work in the direction of finding new uses for various classes of wood, and finding new supplies of raw material for industries which are suffering on account of the growing scarcity of particular classes of wood which has been used exclusively for those industries. The benefits of information obtained by this laboratory in the United States have been admitted by the whole lumber industry of that country. Lumber manufacturers and users in Canada have also been able to profit from the information furnished by the United States laboratory.

Under the above conditions, the Government of Canada should consider following the example of the United States. Canadians need information of a technical nature regarding their timber resources which can be secured only by a Canadian experiment station for investigating the chemical and physical properties of the various Canadian woods. No one can doubt that an experiment station of this nature would be a profitable institution for the country. The conditions of the industry to-day require that it should be established as soon as possible.

The Forestry Branch of the Department of the Interior, which has already done most commendable work in the direction of securing statistics of the lumber production of Canada, has realized, almost from the commencement of its work, that an experiment station would soon be essential, and is making an effort to have one established. The matter was brought up by the Forestry Branch at the last meeting of the Canadian Forestry Association and the proposal was well received. Since that time, different officers of the Forestry Branch have discussed the matter with representatives of the industries which would be most deeply interested, and they have met with encouragement from this source also. The result of these investigations by the Forestry Branch will probably lead, in the near future, to a request being made to the Government that they should establish such a branch. If this comes about those who are interesting themselves in the matter will be able to count upon the general co-operation of the lumber industry.

An experiment station, of the nature under consideration, would enable the Forestry Branch to investigate the properties of different Canadian woods, with a view especially to extending the field of usefulness of some which are, at present, practically non-marketable. It would also serve as a demonstration station from which could be distributed much invaluable information concerning the closer utilization of woods, and improvements in processes of wood-pulp manufacture.

To put the matter in a nut-shell, some of the good results to be anticipated from the establishing of such a station would be: the increased use of Douglas fir as a substitute for yellow pine; the increased use of jack-pine and hemlock for the manufacture of wood pulp; the establishing of wood-pulp industries depending entirely, or partially, upon the use of wood waste from sawmill and other woodworking institutions; the increased use of wood preservative in Canada, where all the woods used in contact with the ground, with the single exception of cedar, are non-durable and capable of preservative treatment; and the establishing of a wood-distillation industry in Canada, depending upon the logging and mill waste of coniferous woods. Even from such a necessarily brief resume of the matter as the above, it is amply evident that the government ought to give this matter favorable consideration without delay. If the timber resources of Canada were far more plentiful than we know them to be, the proposal would still commend itself on account of its economic soundness. With so much necessity for the preservation of our timber resources, the proposal becomes, not only economically, but urgently advisable.

Leaks in the Sawmill

Everyone who has been connected with the working of a sawmill knows a great deal about the splendid opportunities which such an industry affords for losing money in a number of small ways which, when added together, make a very formidable aggregate and sometimes bulk large enough to put the company out of business. "Leaks in the Sawmill," as they are well named by a writer in a recent issue of the Canada Lumberman, are wonderfully varied both in nature and results. They may come from over-anxiety to prevent loss and they may be the result of ignoring small matters which seem to be of little importance. There is no class of "leak" which is more aggravating, when the result becomes apparent, than the "leak" which results from an economy which subsequently develops into a source of expense. One of the most perplexing problems in connection with any manufacturing concern which makes use of machinery in its operations is the question when to get rid of old machinery and replace it with modern equipment.

The expense of new machinery is a great argument on the side of economy and it happens now and then that by continuing to use old machinery one may really save money. It happens more often, however, that the continued use of old machinery when more efficient models are available, is a direct cause of loss to the manufacturer. The small sawmill operator is more likely to persuade himself that expenditure upon new machinery is not needed than is the manufacturer in a large way. Even though a man is only doing a small business, however, he needs the best class of machinery and plant which is adapted to his work. A poorly constructed mill will reduce the output of the finest machinery, and poor machinery will prevent a well constructed mill from furnishing its proper quantity or quality of output. When one is considering the erection or equipment of a mill, however, even though it be a small one, he is justified in deciding to make the building of the best type possible for the work on hand and in installing machinery which will do the work most expeditiously and creditably. Many a small mill has gone under before its time simply because the owner has been too economical in his outlay upon building and equipment. One of the most frequent varieties of lack of proper equipment is the installation of a boiler which

is too small to produce the necessary power. A boiler which has to be forced all the time is certain to cause frequent stoppages for the purpose of getting up steam. These stoppages cost a lot of money on account of the wages of the mill hands, which go merrily on in spite of the fact that nothing is being produced for the time being.

Cheap labor is perhaps as costly a form of economy as anything that could be named. As a general rule, however, in Canada, the problem is not one of "cheapness" in regard to labor, as one of "expense" and "scarcity." Labor in Canada is a much scarcer article in comparison with the amount of work to be done than it was a few years ago. When the sawing season starts in some of the old established lumber manufacturing districts there is great difficulty in securing a full staff of competent hands. Fortunately this applies more particularly to the unskilled labor which is used in shipping than to the higher classes of labor in the mill. Even in the shipping, however, a lot of money is lost on account of careless handling and improper inspection. Money which is spent in securing men who can ship an order exactly as required is productive of results more directly almost than money spent in almost any other manner. The failure to appreciate this point and to pay the minutest possible attention to it, is the cause of more serious leakage in sawmills than many would be willing to admit.

An article upon this subject which appeared in the Canada Lumberman of June 1st ought to be read by everyone who is connected with the manufacture of lumber. It is the product of the experience of a man who has occupied responsible positions in sawmills in many parts of the world, a man who has made a name for himself as a keen observer of methods and results. Readers of the article will appreciate the fact that it lays bare some of the worst troubles in the manufacture of lumber. It is a subject which will stand a great deal of discussion and the views of others in the sawmill business, especially those who are in charge of the manufacturing end will be greatly welcomed by the editor of the Canada Lumberman so that they may be published for the benefit of all others who are struggling with the same difficulties.

Lumber Philosophy

The peculiar habits of lumber piles are often the cause of confusion and embarrassment for lumber dealers and manufacturers. The following characteristic peculiarities, as described by Hardwood Record, will be immediately recognized by experienced lumbermen:

Lumber is a commodity which has more peculiarities than anything else produced by man. Lumber piles have a way of changing widths and lengths suddenly and mysteriously, for if you want stock all 10 inches and wider, 14 and 16 feet long, every pile is sure to contain 6 to 9-inch widths, 10 to 12 feet, while if by an almost unheard of chance you locate a customer who wants all narrow and short stock, the piles are very certain to contain all wide, long lumber.

It has been proven beyond doubt that a quantity of a certain class of stock may be a drug on the market for from three to five years, and finally in desperation a price is put on it that moves it. Invariably within a week letters come from all sections of the country inquiring for this very stock, and it is quite probable that the average lumberman has shed more tears over this fact than over his sins.

Lumber seems to accumulate defects in transit, as many cars of stock are apparently free of knots and other defects when shipped, which when shown to the original shipper or inspector contain many defects that he is willing to swear were not there when the car was loaded.

Lumber will also dry out nicely in pile, but acquire greenness in the car. Witness many cars of stock that are from half green to green when they arrive at destination that were thoroughly dry when shipped.

Chestnut, poplar and oak, and possibly other woods, may be apparently as clear as a bell when in pile and be covered with piles of sawdust and show thoroughly worm-eaten when taken down, much to the surprise and disgust of the owner, who, up to the present time, has found no way to obviate this loss.

We know of a manufacturer who used hickory dimension, and, to prevent the ravages of insects, sprinkled it with kerosene oil, after which it proceeded to burn up. The only satisfaction the owner found was the cremation of the bugs.

In certain sections of the country the writer has known of all oak being piled together and the piles yielding either red or white oak when shipped out, according to the wants of the customer. This is rapidly becoming one of the lost arts, not owing, however, to the loss of magic power by the owner, but rather to the education of the buyer.

Editorial Short Lengths for Busy Readers

United States Postmaster-General Hitchcock has strengthened the forest fire-preventive force of the United States by almost 55,000 men. These men are the rural and star route carriers of the postal service, who are directed to co-operate with the forest rangers and State fire wardens whenever and wherever possible.

Since the Brotherhood of Timber Workers became affiliated with the Industrial Workers of the World the union movement among southern sawmill employees has become one of grave menace. It is reported that the union is getting ready to strike in Mississippi, territory which was singularly free from labor disturbances last year.

Forest fires last year destroyed approximately $50,000,000 worth of property. The Department of Agriculture has been anxious to increase in every way the efficiency of its preventive service. Postmaster-General Hitchcock has found the way to offer assistance, and as soon as his plan was found feasible the order referred to was issued.

According to a dispatch from Grand Rapids, Mich., the hearing before the State Railroad Commission recently on the weight methods of the railroads brought out much interesting testimony. The evidence submitted showed many instances where the stenciled weights on frieght cars were inaccurate, always in favor of the railroad; that scales were defective; that shippers often had to pay freight on snow and ice accumulated after the cars had been loaded and before they had been weighed; that cars were often in bad condition and, unless the shippers themselves cleaned them out, the weight of the dirt was included in their shipment. Instances were reported of inaccuracies of from 3,000 to 8,000 pounds and these errors in effect represented overcharges.

Ocean rates on lumber have gone up so fast lately that European buyers are holding off. The rate from New Orleans to London is now 32 cents a hundred pounds and the rate to Liverpool 30 cents. A year ago these rates were 21 and 20 cents, and they are still going up. It is said that from such a point as Memphis this extra cost on oak lumber is about $4.50 per thousand.

According to word received from a Berwick, U.S., correspondent, the supply of lumber in the Annapolis Valley is rapidly decreasing. Few tracts are left of spruce, hemlock and pine, and these will be cut within a year or two. It is said that the company operating back of the valley to the south, have a ten to fifteen years' supply, but it is believed that their profits are small.

The increasing demand for apple and potato barrels will call for approximately 5,000,000 of barrel and heading stock. The price of barrels was 27 cents at first, but rose almost immediately to 30c. One co-operative fruit company purchased 20,000 barrels at 28c.

"Sized" Lumber Sawn on Three Sides, Dutiable

The case of the Foss Lumber Company versus the King, involving the right of the Dominion Government to exact duties on importation of certain lumber from the United States, which is sawn on one side and two edges, and planed or dressed on the other side, under Item 504 of the Tariff Act of 1907, has occupied public attention very much of late, and certain opponents of the government have endeavored to make political capital out of the situation.

By their statement of the claim, the Foss Lumber Company, Limited, allege that they presented on the 2nd of April, at the Customs House, Winnipeg, a carload of lumber sawn and dressed as above for free entry, which was refused, the customs authorities claiming that the lumber was subject to duty at the rate of 25 per cent. upon its value. The plaintiffs, in order to obtain the lumber, paid the duty, which amounted to $77, under protest, and entered action to obtain repayment and also for the purpose of settling the question of whether such material is duty free or otherwise under the Tariff Act.

In dismissing the action with costs, Judge Cassels delivered his judgment as follows:

"This was a reference under Section 38 of Chapter 140, Revised Statutes of 1906, whereunder the Minister of Customs referred the claim of the Foss Lumber Company to the Exchequer Court of Canada for ajudication thereon. The claimants filed their statement of claims, to which the respondents filed their defence.

"The claim is to recover the sum of $77 customs dues paid at Winnipeg on certain lumber imported from the United States. The amount is small, but it is said that it is a test case involving a large amount. The contention of the claimants is that the lumber in question was free from the payment of duties under Tariff Item 504 in Schedule A of the Customs Tariff. This schedule is a schedule of the Customs Tariff Act of 1907. Item 504 reads as follows: 'Planks, boards and other lumber or wood sawn, split, or cut and dressed on one side, but not further manufactured, free.' The contention of the claimants is that the lumber in question was free from duty as the planks were sawn and dressed on one side only, but not further manufactured. The Crown on the other hand, contends that the carload of planks in question, after being sawn and dressed on one side were further manufactured.

"At the trial, certain admissions were filed. It was intended by the admission to admit that all the lumber in the carload in question was according to these samples. It was admitted at the trial that the samples in question would be taken as samples of the carload. The point of dispute is whether or not, after the planks in question were sawn at the mill, they could be further manufactured in the planing mill, and the claimants contend that if only saws were used, they came within the strict letter of Item 504, and were to be treated as not further manufactured. I am of the opinion that the contention of the Crown is well founded and that the planks in question have been further manufactured and are not entitled to free admission under Item 504.

"After being sawn in the mill the planks were dressed on one side, and with the aid of other contrivances. The sizing was not done with the circular saws or with the gang saws in the mill, nor under the evidence, is it possible to size them in the first sawing. The sizing has to be done with the aid of other machinery and according to the evidence, and the admission of the counsel, there is no machinery in what is known as a sawmill proper which is capable of sizing the planks. It is clear from the evidence that the planks in question came in ready for use as joists and studding. It has been sold to the vendors for that very purpose. The onus is upon the claimants to show that the decision of the Customs Department was erroneous. They have given no evidence to contradict the evidence on the part of the Crown.

"The case was very forcibly argued by the counsel for the claimants. His contention goes the length of claiming that any planks or boards may be completely manufactured for any use the purchaser might desire, and that so long as nothing but saws were used, no matter where the saws were used, it comes within the strict letter of Item 504, and that the planks have to be treated as planks, sawn in the case in point, upon one side and two edges and dressed on the other side. This is not my view of the meaning of the tariff. I am not concerned with anything but the construction to be placed upon the tariff. As to the policy of such an item, that is not a matter with which I am concerned. I do not know why the concession was made, allowing the planks to be dressed upon one side only.

"Reference to Item 503 is important. It reads, 'Planks, boards, clapboards, laths, plain pickets and other timber or lumber of wood, not further manufactured than sawn or split, whether creosoted, vulcanized, or treated by any other process, or not.' Section 504 permits the dressing on one side. It may be that there are two reasons for this concession, first to save the freight, and second for a great many purposes. Any expert with an axe could size them up so as to fit them for building purposes. I think the whole scope of the statute and tariff is to prevent completely manufactured articles being entered free of duty. It would be straining the Act and the meaning of Item 504 to construe it in the manner the claimants seek to have it construed in this particular case.

"I do not think the case of Magann vs. the Queen, reported in Ex. 2, C. R., page 64, covers this case. In that particular case the tariff act provided that oak lumber sawn, but not shaped, planed or otherwise manufactured, might be imported into Canada free of duty. The only question for decision before the judge in that case was whether or not the lumber in question had been shaped within the meaning of the tariff act. It was held it was not. It was also very strongly pressed by counsel for the claimants that what should govern in deciding the case was the condition and the form in which the lumber is produced to the customs and that forms the determining factor in applying any item of the tariff. Apparently, according to his contention, no evidence should be receivable except the appearance of the wood. He cites in support of this the case of the Queen vs. Ayer, a decision of the late Sir M. J. Ritchie, C. J.,

"I think this case has no application to the question before us. In that particular case as pointed out by the chief justice, there were various provisions in the Tariff Act, some of which permitted the ingredients to be entered separately on payment of certain duties. The Ayer Company imported these various items for years, paid full duty, and then it was subsequently contended that after having legally imported and paid the duties chargeable, because they had chosen Canada to put them together and make a compound liable to higher duty if imported in that form, that fraud had been perpetrated and that they were bound to pay the extra duties and penalties. The Chief Justice's simile explains the view. Importation of wine in a cask subsequently bottled in Canada indicates what he meant. As he pointed out the customs tariff provided certain duty on wine if it were imported in bottles. The man imported wine in the cask, paid the duties, and then subsequently bottled it in Canada, and the Chief Justice, referring to the form in which the goods were entered, determined that if they came in under the item of the tariff and the proper duties were paid under the item, it was of no consequence what was subsequently done with the goods in Canada.

"Here is the case before me. The same question is whether the planks in question, after being sawn, went through any other process of manufacture. This is a question of fact, from the evidence. I think the action fails and should be dismissed with costs."

The case has been appealed and will probably come before the Supreme Court in October.

Distribution of United States Lumber Products

The lumber production of the United States during 1909 amounted to 44,509,000,000 board feet. The various uses to which this lumber was put are shown by the following table:

		Per cent total lumber cut	Millions of board feet
(1)	Planing mill products, including sash, doors and general mill work	29.70	13,250.00
(2)	Boxes and crating	10.00	4,448.00
(3)	Car construction	4.48	1,955.10
(4)	Furniture	3.02	1,348.16
(5)	Vehicles	1.97	877.31
(6)	Agricultural implements	.78	350.67
(7)	Musical instruments	.61	273.48
(8)	Woodenware	.51	228.16
(9)	Ship and boat building	.43	192.63
(10)	Trunks and valises	.21	94.98
(11)	Handles	.63	281.64
(12)	Miscellaneous industries	12.30	5,470.00
(13)	Export	6.74	3,000.00
(14)	Sawed ties	2.28	1,017.00
(15)	Rough lumber and structural timbers	26.32	11,750.00

Assuming that practically all of the planing-mill products go into the building trades, these estimates indicate that fifty-six per cent. of the entire lumber production, or 25,000,000,000 board feet, goes into building and general construction work. This amount is made up as follows:

80 per cent. total yellow pine manufactured	13.0 billion
80 per cent. total Douglas fir manufactured	3.9 billion
90 per cent. total hemlock manufactured	2.7 billion
Cypress, white pine, redwood, oak and other hardwoods	5.4 billion

It seems, therefore, that fully fifty per cent. of the entire lumber produced has to be sold in competition with cement, brick, tile, etc.

Quebec's Timber and Lumber Industries

An Increased Export of Timber Expected—Pulpwood Business Experiencing Active Demand — Revenues of the Forestry Branch Increasing

By the Editor of The Canada Lumberman

Quebec, June 20th; (Special correspondence of the Canada Lumberman).—The city of Quebec has many peculiarities which are of keen interest to business men from other parts of Canada. Lumbermen in particular find in Quebec a variety of lumber trade which is of absorbing interest both on account of its present almost anomalous situation and of its romantic and important past. To-day, in Quebec, one finds the head office of many of the most important exporting firms in Canada. At the same time he finds also that in most cases the logical location for these head offices would be in Montreal or Ottawa. Since the early days of Quebec, however, when the timber trade of the city was of far greater proportions and infinitely greater importance than it is to-day, these head offices have been located at Quebec and they seem likely to stay there.

In the early days timber came to Quebec by water. Great rafts of large timbers were floated to Quebec and there taken on sailing vessels to be transported to Great Britain. To-day, the exports from Quebec come in mostly by train and are conveyed to Great Britain on steamships which carry away in one load as much as a sailing vessel used to be able to take away in a season. In the early days the sailing vessels made a brave showing in the harbor of Quebec and in the numerous coves up and down the shore. But the old timber trade has dwindled. It saw its best days, some decades ago. Since then it has been a matter of some difficulty to get good square timber. The easily accessible timber has been cut out and it has been necessary to go hundreds of miles inland to get supplies. This has increased the cost of the timber. Labor and materials, and ocean freight rates have also advanced greatly in price. At the same time the famous Canadian white pine has met with vigorous competition from the timbers of Russia.

Exports of timber from Canada, therefore, have steadily declined. However, there still comes an occasional combination of circumstances which gives the trade a temporary stimulus. During the present year this is in evidence and it is believed that the exports of Canadian white pine timber during 1912 will show an increase. How to account for the change is something of a puzzle. Generally speaking, however, it is to be explained by the fact that last year commercial conditions in England showed an important improvement, which, had it not been for the untimely labor disturbances, would have had a far more beneficial effect than has been the case. In the timber trade better prices were secured in England. The demand improved and the improvement was felt in every country which furnishes Great Britain with timber, Canada among them. Better prices made it possible to incur greater outlay in securing timber, and the owners of Canadian white pine timber were able to go further back for their supplies. Higher prices were directly responsible and many operators turned their attention to timber, with the result that during the present year there is likely to be either a larger production of timber, or a closer consumption of the supplies produced. The timber merchants of Quebec city report an appreciable improvement in this regard. They report also that taking the exports of timber, deals, lumber, etc., all into consideration, the trade with Great Britain, although active, is not likely to show any important increase, as the excess in square and waney timber will probably be secured at the expense of the other lines.

These conditions apply generally to other exporting points in Eastern Canada. The likelihood of only an average export to Great Britain, so far as quantity is concerned, is the result of the labor troubles in England and of the high freight rates for ocean carriage. A year ago freight rates were about 30s. per standard. To-day they are 40s. The cost of the timber or lumber in Great Britain is thus increased by about $1.20 per thousand, which is a serious matter when competition has to be faced from Russian timber, on which the freight rates, though increased in proportion, are relatively light.

Increased Importance of United States Markets

The uncertainties of the markets in Great Britain of late years have directed the attention of many of the manufacturers and merchants of Quebec towards the markets of the United States. This applies particularly to spruce, which, either as lumber or as pulpwood is now going to the markets of Boston and New York in steadily increasing quantities. A prominent Quebec exporter discussing this feature of the trade stated that he found the United States markets far more satisfactory and he believed the future would see a steady increase in shipments to that country and a decrease in shipments to Great Britain. The factors in favor of the United States trade were chiefly two. In the first place United States buyers would take practically the whole product of the log, and in the second place, being so much nearer to the markets it was comparatively a simple matter to adjust any disputes which arose. These advantages had been offset in former years by the better prices to be secured in Great Britain. Lately, however, higher freights to Great Britain and a better demand in the United States had set the tide of trade in the latter direction and it now looked as though the tendency towards shipping to the United States would increase steadily. It is interesting in this connection to note that the increased ocean freight rates to the Old Country at present offset exactly the duty upon rough lumber entering the United States.

A Good Demand for Pulpwood

In regard to the pulpwood industry, one finds in Quebec province to-day, practically only one opinion, namely, that the demand is greater than the supply. Prices to-day are about a dollar higher than they were a year ago and it is difficult to secure stocks rapidly enough. The most important cause of the difficulty in securing pulpwood is the scarcity of labor, which is attributable to the demand for labor resulting from the great quantity of railroad and general construction now in progress in Quebec Province and in Canada generally. The paper making industry of Canada, moreover, is advancing rapidly. New mills are being built in many parts of the country which make heavy demands upon the pulpwood resources. The quantity available for export is thus reduced. In one instance the editor of the Canada Lumberman met with a manufacturer of pulp and paper who had a different tale to tell and who believed that the policy of the Quebec Government in prohibiting the export of pulpwood cut from Crown land was not having its contemplated effect. He stated, moreover, that it had been found possible to convert Crown lands into private lands by inducing settlers to secure grants and then buying their pulpwood. This view of the situation is strongly disputed by every other manufacturer with whom we have been able to discuss the situation and the opinion is generally expressed that the prohibition of export is an excellent thing for the province and that the government is watching the "settler" aspect of the question very closely. Certain it is, that the majority of the pulpwood merchants and others connected with the pulp and paper industry in Quebec Province, with whom we have discussed matters are experiencing a satisfactory demand at good prices and are handicapped only by inability to secure sufficient stock.

Importance of Lumbering to the Province

When one takes into consideration the vital importance to Quebec Province of its timber and pulpwood resources, the conditions as outlined above become of much moment. To an astonishing extent, the prosperity of the province is involved in these industries. The province depends upon them to a great extent for its revenues. The receipts from the forestry branch for the fiscal year ending June 30th will be nearly $1,600,000. A year ago the total was $1,126,000. The average for the last four years was $1,000,000. The careful management of the forestry service is in a large measure responsible for this. At the same time the improvement in the demand for lumber and timber in the home and foreign markets has been an important factor. It is evident therefore that the province must find it of ever-increasing importance to watch closely the methods of lumbering operations, to do its utmost to conserve the timber resources, and to adopt the best measures for ensuring to the people of the province the greatest measure of profit to be obtained from them.

The actual production of lumber and the revenue derived from it are only the beginning of the benefits secured by the people of Quebec Province from the lumbering industry. The province is dotted with wood-working industries in which the lumber for home consumption is converted into a finished article. A list at present practically completed by the forestry branch of the Department of Lands and Forests gives no less than 2,000 of these institutions, including, of course, the saw and pulp mills. It can thus be seen at a glance that when one is able to report a satisfactory demand for the products of Quebec's forests he is able at the same time to report that the province as a whole is prosperous. This is the present situation and the outlook for the immediate future is encouraging.

A dispatch from Vancouver, B.C., states that the Western Canada paper mill at Sapperton, B.C., has broken ground at Coquitlam, a new railway divisional point. for an auxiliary plant, which will be utilized at first for roofing paper, paper bags and later on will turn out cardboard boxes.

Quebec Spruce and Cedar Industry

Exceptionally Favorable Conditions of Present Year Indicate Good Profits—Every Mill Got Out Its Full Drive

By the Editor of The Canada Lumberman

Sayabec, P.Q., June 22nd.: (Special correspondence of the Canada Lumberman). Between Quebec city and the New Brunswick boundary, along the line of the Intercolonial Railway, are located a number of the most important sawmilling industries in the province of Quebec. As one travels through this country he is impressed forcibly with the fact that the sawmilling industry is one of the most important sources of the country's welfare. A large portion of the population depend upon it for their existence, as they are employed, either in the mills or in the woods throughout the year, and their wages, which are steadily increasing from year to year, enable them to bring up their families—which in most cases are far from small—in comparative comfort.

Take for instance the shingle manufacturing end of the business, which is a most important factor in the lumbering industry of Quebec Province. At nearly all of the large mills on the south shore of the St. Lawrence River, a number of shingle machines are operated. These machines give employment to a great many men and boys, in operations of various sorts. When the cedar logs enter the mill they are sawn into shingle bolts by a large circular saw. The bolts are then smoothed off on a barking or rossing machine and pass next into the hands of the shingle cutter, whose work is not only of a skilled, but of a dangerous nature. The shingles are cut and sorted by the man who tends the shingle machine, and they are bundled by boys who receive them from their different sorting chutes. These boys at the bundling and the shingle operators at the machines represent the two ends of the laboring classes in shingle manufacturing. The boys are paid by the number of bundles made, and earn as much as $2 a day. They become wonderfully expert, both at bundling and at sorting. Their chief work is bundling, not sorting, but of necessity they have a little sorting to do and they learn the requirements of the different grades quickly. From these boys are recruited the shingle machine operators, and these men obtain about $3.50 per day. The mills are run six full days each week. Therefore a smart boy makes $12 a week at bundling and the machine operators earn $21 a week. The men therefore earn sufficient to keep them comfortably, while a family with a few boys among its number is able to secure a very tidy income.

Quebec Driving Operations

A feature of the sawmilling industry of Quebec, as compared with the other parts of Canada, is the fact that most of the companies are able to conduct their entire operations from the woods to the saw. It is not necessary to employ any driving corporation to transport the logs to the mills. The mills are located on the line of the Intercolonial Railway, where it crosses the numerous rivers running from the height of land into the St. Lawrence River. These rivers, provide excellent driving facilities, requiring only a moderate amount of improvements. During the present year the driving operations were conducted with exceptional success. A hard winter with plenty of snow was followed by a late spring, during which the water in the rivers reached a great height and came out slowly enough to permit the logging operations to be conducted at a minimum expense. Everyone of the driving rivers presents to-day a unique scene, in the neighborhood of the mills. From bank to bank nothing is to be seen but cedar and spruce logs, extending up the rivers as far as the eye can see. In some places the logs are jammed several feet high and they appear to have come out in volume sufficient to prevent the mills from being able to saw them all during the present season. It is the invariable report, however, that the logs will all be sawn and nothing held over for next year. The demand for Quebec spruce lumber and cedar shingles this year is exceptionally good and with a splendid supply of logs secured at small expense, the lumbermen are counting upon one of the best years they have ever experienced, Not only were the driving conditions good during the spring which has just passed, but the logging conditions last winter were also favorable. This year, therefore, the cost of operating has been less than usual, supplies of raw material on hand are plentiful and the markets are buoyant.

The Rate of Timber Consumption

One cannot avoid wondering as he sees the great quantity of logs which were cut last winter, whether the business is not being over done, and the timber resources consumed too rapidly. The information which is available upon this point, however, is reassuring. The Government of Quebec is paying minute attention to the question of preserving its timber. The agents of the Forestry Branch of the Department of Lands and Forests, visit all the limits of the lumber operators regularly each winter and keep closely in touch with their operations. Reports are made to the Chief Forester and if it appears from these reports that the companies are operating in a manner which will seriously impoverish the limits, or that they are logging in a wasteful manner, the Forestry Service notifies them to this effect and suggests improved methods. Mr. G. C. Piche, Chief of the Forestry Service, reports that the lumbermen are taking their notices reasonably and invariably acting upon them, so that the province has good reason to believe that its timber resources will continue to produce at their present rate at least, indefinitely.

An instance of the working out of practical economics in connection with lumbering operations is afforded by such a company as the Metis Lumber Company, Price, Que. This company is now cutting cedar almost exclusively and permitting its spruce to grow. It is reckoned that after the spruce on the limits has had a rest of about twenty years the spruce will be practically as good as it has ever been. It has already had a rest of about twelve years. It will be possible in another eight years to alter the operations and cut the spruce limits extensively, and if necessary give the cedar a rest. The cedar growth, however, is very extensive and good, as it had never been cut until this company commenced about ten years ago. The company have good reason to believe, therefore, that they have a practically inexhaustible supply of timber.

The lumbering operations of this part of Quebec province have undergone important and interesting changes since the early days. The manufacturing of spruce lumber and cedar shingles is of comparatively recent origin. The case of the Metis Lumber Company may again be used as an example. There have been lumbering operations on the Metis River for the past seventy-five years. In the early days the mills were located near the mouth of the river where vessels could be loaded to carry the lumber and timber by way of the St. Lawrence River to the ocean and thence to Great Britain. The mills in those days were operated by water power and their product was entirely white pine, which was consumed mostly by the British Navy. Prices were low, comparatively speaking, and the splendid white pine then produced did not bring as high a price as the spruce of to-day. One may obtain an idea to-day of the methods of manufacturing adopted in the early days by examining some of the wharves which were then built. At the site of the first mills on the Metis River, which were operated by Mr. Price, the grandfather of the members of the present firm of Price Brothers, of Quebec, there are still to be seen the wharves and piling grounds which were then used. These are constructed of heavy white pine slabs, which had been cut from the logs in making timber for export. They show that the manufacturers were content to use only the hearts of the logs and to discard slabs from which manufacturers to-day would secure a great quantity of excellent timber. The operators of those days, however, were obliged to regulate their business according to their markets, even as those of to-day. There was no market for anything but the best of the timber and the rest had to be discarded. To-day, the white pine of Quebec has practically disappeared. Each mill secures a few white pine logs annually, but not sufficient to make a good sized pile of lumber when they have been passed through the mill. Everything is spruce and cedar and a thriving and probably continuous industry has now been created upon the use of these timbers, for which in earlier days there was no market whatever.

Mr. C. W. Tooke, of Saranac Lake and formerly of Malone, is one of the owners of a $3,000,000 pulp mill at Murray Bay, a description of which was published in our last issue. This is one of the largest as well as one of the most modern pulp mills in the world and employs about 250 men. During the past winter 45,000 cords of pulp wood was cut from the company's forest preserve in Canada. This preserve consists of 400 miles of forest, which is awaiting transformation into pulp. The mill is operated by a power plant, which at the present time develops 10,000 electric horse power, and the capacity of the mill is 100 tons of pulp per day. The operating cost will be much smaller than other mills of the kind having the same capacity, and the plant is considered the finest in the world. It is believed that the timber tract belonging to the company will supply it with wood for one hundred years to come if judiciously lumbered.

Canadian Saw Mill Managers

G. E. Hornibrook, Wolverine Cedar and Lumber Co., Little Current, Ont.

Mr. G. E. Hornibrook, Little Current, Ont.

One of the best known mill managers on the north shore of the Georgian Bay is Mr. G. E. Hornibrook, local manager for the Wolverine Cedar and Lumber Company at their plant at Little Current, Ont. Mr. Hornibrook was born in Bathurst, N. B., in 1873, and when he was ten years of age his family moved to Marinette, Wisconsin. In 1893 he entered the service of the Marinette Lumber Company as head bookkeeper. He had had no previous experience of the lumber business, and some people will wonder at his nerve in having taken a position of such responsibility without knowing anything of the work. But in the lumber business there are many successful men to-day who have had the courage in their early days to tackle a big proposition, with nothing but their determination and their good common sense to bank upon. This is what Mr. Hornibrook did and the result justified those who had placed enough confidence in him to put him in such a position. It was an uphill fight for him for some months. The work was difficult and intricate. Only by close application and long hours was he able to handle the task. For days at a stretch he worked many a time for fifteen or sixteen hours a day. In this manner, however, he laid a foundation which has enabled him to cope with still more difficult duties since that time. While he was occupying the position of head bookkeeper for the Marinette Lumber Company, the mouth of the Menominee River, where the mill was located, was one of the busiest lumbering spots on the continent. No less than twenty-three mills were then cutting white pine at the mouth of the river, all within a radius of one mile.

For thirteen years Mr. Hornibrook was in the service of the Marinette Lumber Company, serving both in the office and the yard, and remaining with the firm until they finished cutting their lumber and closed up their business.

Later, Mr. Hornibrook accepted a position with the Wolverine Cedar and Lumber Company and has been with this company for six years. At first he occupied the position of assistant to the general manager. For the last five years, however, he has been manager of the Little Current mills operated by the company.

That the work in which Mr. Hornibrook is engaged is exacting and varied is known to all who have visited the mills. The output is known for its uniformity of manufacture and grading, and it amounts to about 130,000 feet per day of ten hours, in addition to 40,000 lath. On thick lumber the mill sometimes averages as high as 165,000 feet per day. One of the most interesting features of the plant is the splendid natural facility provided for the drying of lumber. Picnic Island, on which the plant and yard are located, is practically a ledge of solid rock which dries quickly after a rain and does not hold any moisture to stain the lumber. Moreover, the island lies out in the channel in which there is always a breeze to assist in the drying.

Mr. Hornibrook has made a close study of the management of sawing operations. Referring to his work he states that the most important factor in the production of good lumber is the class of labor employed. Loyalty to the employer's interests on the part of all employees from top to bottom, is the only sure basis of successful operation, in sawmills, as in all other lines of business. In this connection Mr. Hornibrook sums the situation up in the following manner:—"Get loyal men and get rid of all others. Pay the highest rate of wages, but insist on getting the best men for every position."

Some other rules which he adopts with success in the general scheme of management are as follows:—

Be careful of all expenditures, large or small, whether for labor, supplies or other items.

Keep plant and grounds in a sanitary condition always.

Watch manufacture closely and have mill grades uniform, so that customers will always know exactly what they are getting.

Be careful of insurance matters and fire protection. If fire fighting facilities are poor be careful to keep equipment in best possible condition. This will be found more effective in case of fire than a first class outfit carelessly taken care of.

These are a few only of the larger problems which are continually occupying the attention of a mill manager. There are hundreds of other details also, which must be closely watched. Only by studying them all and being conversant with all the details in connection with a mill, can a manager hope to make good. That Mr. Hornibrook has been able to hold his position with one of the most progressive and best managed mills in the country for six years, ever since the company came into possession of the mill, in fact, is a striking illustration of the fact that none of these matters has ever been able to escape his careful attention at any time when it was important that it should be looked after.

Switching Charges Reduced

The Baltimore Lumber Exchange, working with other organizations, has scored a great victory in the matter of switching charges, which have long been a subject of discussion and agitation. A long standing complaint has been that the Baltimore switching charges were extortionate and put business under a serious handicap as against other cities. The Interstate Commerce Commission was appealed to for relief and rendered a decision not long ago, but it proved distinctly unsatisfactory. The matter was then laid before the Maryland Public Service Commission, which has made a ruling that orders sweeping reductions, some of the charges being only a fourth or less of what they have been. The order of the commission, issued on May 31, established a switching district which is to remain fixed for five years, with the charges unchanged for the next three years, and until further orders the charges being as follows:

A rate not in excess of $1 a car for all services in connection with yard switching; rates for all services in connection with connecting line switching, not in excess of $3 a car when in connection with a line movement, and not in excess of $6 when in connection with a local movement; rates for all services in connection with intermediate switching not in excess of $4 when in connection with a line movement and not in excess of $7.50 when in connection with a local movement, and a rate not in excess of $5 a car for all services in connection with industrial switching.

The decision is held to give to Baltimore the concessions to which the city is justly entitled, the business men here getting practically what they have contended for. Heretofore the charge for switching a 50,000-pound car from one road to another amounted in instances to $40 and even $50. The State Commission rules that $6 is enough for this service. The reduction will enable the business men, especially lumber dealers, to compete more successfully with other places and to hold their own against rivals.

Largest Lumber Deal in the History of New Brunswick

The taking over of the Alexander Gibson timber areas and sawmills by the Partington Pulp and Paper Company, Limited, at the cost of some $2,000,000, is the biggest deal of the kind that has ever taken place in New Brunswick, and it recalls the history of the building up by one man of a great industry, which has passed to other hands, although its founder still lives at an advanced age in the town which he established years ago. When Alexander Gibson went to the Nashwaak there was an abandoned sawmill and not much else. He built mills, built driving dams all along the river, manufactured lumber successfully, bought more timber lands, leased others from the government, enlarged his operations, built a large cotton mill, and before many years the thriving town of Marysville stood as a monument to the business ability and enterprise of one man. Mr. Gibson retired from any active participation in the business quite a number of years ago. It is possible that a pulp mill will be built at Marysville, and that the one at St. John will be enlarged, and that next year a paper mill to manufacture high grade paper will be erected at St. John. Of last winter's cut of lumber on the Nashwaak, 7,000,000 feet will be rafted to St. John for the pulp mill and about 10,000,000 feet manufactured in the sawmills at Marysville. There is a prospect that pulp and paper making in New Brunswick will be encouraged by the government and more actively developed during the next few years.

Paper Concerns Amalgamate

The Barber Paper and Coating Company is the name of a new firm which has taken over the interests of the firm of William Barber & Brothers and the Canada Coating Mills of Georgetown, Ont. George R. Copping is president, S. P. Duncan treasurer, and I. H. Weldon, secretary. The new company is already in possession. The amalgamation means the practical retirement of the paper making veteran, John R. Barber, from active business owing to his desire to spend his remaining years free from so many executive cares and responsibilities. Out of compliment to him his name is retained in the new charter. Now that he has handed over the large Georgetown interests to the management of others, Mr. Barber retains only the presidency of the Toronto Paper Manufacturing Company at Cornwall. He is also a chief shareholder in Barber & Ellis, Toronto, and has various other financial interests. It is understood that the new company will develop the Georgetown mills along lines much the same as at present, but extensions and alterations are not unlikely.

Pulpwood Production of Canada 1911

Statistics Show Increased Production and Higher Prices—Spruce Still the Leading Wood — Heavy Exports of Pulpwood Still Continue

The Forestry Branch of the Department of the Interior have compiled a report upon the pulpwood manufactured in Canada and the pulpwood exported from Canada, during the calendar year 1911.

The figures given for pulpwood consumption refer only to wood manufactured into pulp in Canadian mills, and include only wood of domestic origin. Wood which is exported raw is given in Table 6. Reports were received from all the mills known to be in operation, with the exception of a twenty-ton sulphite mill in British Columbia which commenced operations in 1911. Otherwise the quantity and value given in the tables of this bulletin may be considered a trustworthy statement.

The 54 firms reporting used, in 1911, 672,288 cords. There were exported in a raw state 847,939 cords, making a total cut of 1,520,227 cords, valued at $9,678, 616. This is 21,401 cords less than were cut in 1910, but the quantity manufactured in Canada was larger.

Over 95 per cent. of Canadian mills cut the pulpwood used by them from their own limits and consequently ross the wood themselves.

TABLE 1.

PULPWOOD, 1910 AND 1911, BY PROVINCES: Total Quantity of Wood Used, Total Value, Average Value per Cord, and Number of firms reporting, 1911.

Province.	1910.			1911.			
	Wood used.	Value.	Average value per cord.	Wood used.	Value.	Average value per cord.	Number of mills reporting.
	Cords.	$	$ cts.	Cords.	$	$ cts.	
Canada	598,487	3,585,154	5 99	672,288	4,338,024	6 45	54
Quebec	342,755	1,879,831	5 48	390,426	2,516,683	6 45	28
Ontario	210,552	1,479,538	7 03	213,667	1,457,224	6 82	14
New Brunswick	22,634	119,620	5 28	45,824	251,858	5 50	4
Nova Scotia	22,106	103,965	4 71	22,221	111,119	5 00	7
British Columbia	440	2,200	5 00	150	1,140	7 60	1

Altogether 73,801 cords of wood (i.e., 12.3 per cent.) more were used in 1911 than in 1910. The average price of the wood also increased, so that the value of the domestic pulpwood industry was greater in 1911 by $752,870, or 21 per cent. The average price per cord was $6.07 in 1908; $5.57 in 1909; $6 in 1910; and $6.45 in 1911. Only 22,229 tons more of pulp were produced in Canada in 1911 than in 1910.

There was a decrease of 93 pounds in the amount of pulp produced per cord of wood; it is difficult, however, to secure trustworthy data as to the output of pulp, since many firms do not give the air-dry weight.

Quebec is the premier pulpwood province of Canada, because of its extensive spruce and balsam fir forests fit for pulpwood, its abundant and cheap water-power and its plentiful supply of labor. The 28 mills in Quebec reported a consumption of 58 per cent. of the total for Canada, or 47,671 cords more than in 1910. The quantity used was 13.9 per cent. more than in 1910, and the value 33.9 per cent. greater. Ontario, although suffering from the flooding of one mill, increased the amount consumed in its fourteen pulp-mills by 3,115 cords, and used nearly one-third of the total production. New Brunswick is recovering from the depression of 1910, and contributed 45,824 cords, or 6.8 per cent. of the total. In 1909 it used 88,450 cords, being 14.2 per cent. of the total, so the recovery is still incomplete. In Nova Scotia, where one large mill was burned early in the year, the consumption has increased by 115 cords as compared with 1910. Low water prevented the mills of New Brunswick from manufacturing at full capacity during 1911. The province of British Columbia is still experimenting in pulpwood manufacture, and the negligible amount reported from this province is manufactured for test purposes only.

In Ontario the price of pulpwood was less by 20 cents in 1911 than in 1910. The increase in the price of wood throughout Canada is due almost entirely to Quebec, where the price increased 97 cents per cord. Of all the provinces Nova Scotia shows the lowest average price for pulpwood, namely, $5.00 per cord.

The increase in the quantity of pulpwood used in 1911 was practically confined to spruce—78,046 cords more of this species being used than in 1910. Poplar increased by 578 cords, regaining third place among pulp woods, while hemlock and balsam fir decreased, the former by 2,140 cords, the latter by 3,075 cords. Most of these changes took place in the province of Quebec, which used 52,446 cords more of spruce, 3,718 cords less of balsam fir, 2,096 cords less of hemlock, and 651 cords more of poplar. New Brunswick also showed a large increase in the spruce used.

Although the reports furnished from the mills do not indicate it, the proportion of balsam fir used is yearly increasing. Balsam fir and spruce are used in mixture in the manufacture of new print. A few years ago it was thought that if the proportion of fir was increased above twenty-five per cent. an inferior paper would result. Greater skill in papermaking has shown that the proportion of fir may be increased to forty per cent. or over. This is now being done by some mills and the resulting paper has proved satisfactory. In various parts of Eastern Canada, particularly in Quebec, balsam fir forms from twenty to fifty per cent. of the forest. The practice of the companies now operating is to take spruce and balsam as they occur in the forest. On account of the preudice still existing against balsam fir, it has not been expedient for the mills to keep track of or report the exact proportion of balsam fir used. Hemlock, which was third in 1910, has retired to fourth place in 1911. Although it has fallen off nearly 60 per cent. since 1910, more than twice as much of it was used as in 1909. There is reason to suppose that a larger export of hemlock took place. While more poplar was manufactured in 1911 than in 1910, it is still below the amount for 1909. Jack pine has not been reported as a pulp wood since 1908. Before that time it was used considerably by two large mills, but has proved unsatisfactory. Arrangements are now being made by mills in Ontario and Quebec for a further use of jack pine.

TABLE 2.

PULPWOOD, 1910 AND 1911, BY SPECIES: Total Quantity, Total Value and Per Cent Distribution.

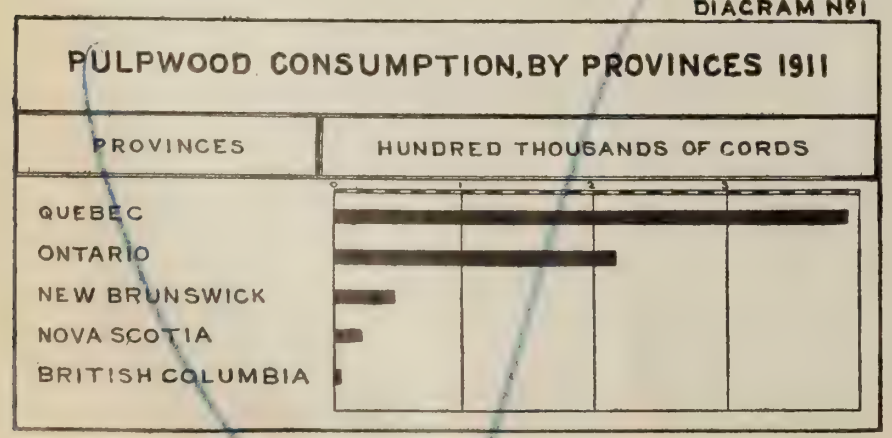
Kind of Wood.	1910.			1911.		
	Quantity.	Value.	Per Cent Distribution	Quantity.	Value.	Per Cent Distribution
	Cords.	$		Cords.	$	
Total (1)	598,487	3,585,154	100·0	672,288	4,338,024	100·0
Spruce	470,230	2,846,678	78·6	548,276	3,548,824	81·6
Balsam fir	120,475	698,608	20·1	117,400	750,950	17·5
Poplar	3,608	21,366	0·6	4,186	25,830	0·6
Hemlock	3,810	16,922	0·6	1,670	8,640	0·2

(1) The total contains a small quantity of wood not identified by species.

The average price of the different species used is the cost to the mill-owner, and so includes varying logging expenses and a wide difference in transportation charges. Maximum and minimum prices for a species in a single province may differ by 100 per cent. The great majority of pulp-mill owners have their own timber limits, and to them the cost of their pulp logs is merely the cost of carrying the limit and the operating charges. Other operators buy in the open market and add transportation charges. Thus the prices quoted are the purchase prices under different conditions, and do not show the relative value of the different woods for pulp manufacture.

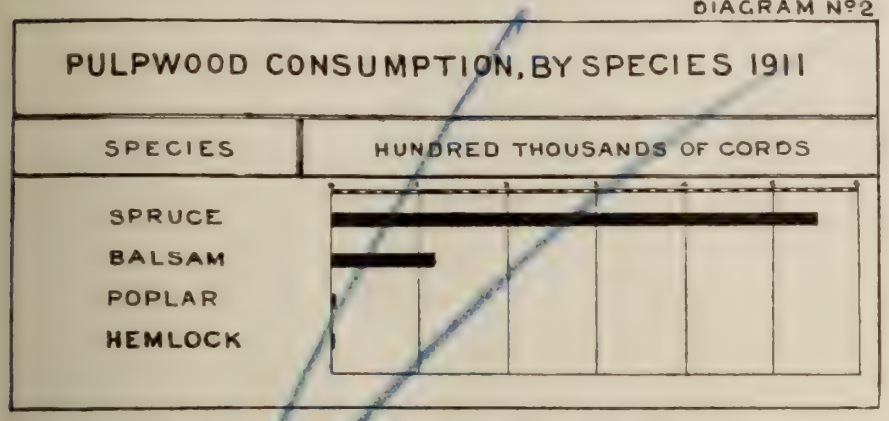
The effect of an excessive hauling distance is demonstrated in

DIAGRAM No 1



Ontario, where the prices of spruce and balsam fir were $6.75 and $7.46 respectively. The high price paid for balsam fir and the sustained demand for this species proves its suitability for manufacture into pulpwood. Over the whole of Canada spruce was the most expensive species at $6.47 or 42 cents more than in 1910. Balsam fir is at $6.40, having risen 69 cents since 1910. Hemlock, though still the cheapest species, advanced 75 cents per cord, its average price in 1911 being $5.18. Poplar has advanced 25 cents over 1910, the price last year being $6.17. The cheapest pulpwood bought was a small quantity of poplar in Nova Scotia, which cost $3 per cord. A small quantity of hemlock in British Columbia at $7.60 was the

DIAGRAM No2



most expensive wood, on the average, used in Canada for pulping; but as much as $10 per cord was paid for spruce in some cases.

During 1911, no slabs or saw-mill waste were reported as being converted into wood-pulp in Canada, but from the reports made to the Forestry Branch by saw-mill operators it would appear that a very small quantity of mill waste is so utilized by three companies operating saw-mills and pulp-mills under the same ownership. This is an economy practised to a greater extent in other countries, and by neglecting it Canada is losing greatly. It has been conservatively estimated that if all useful logs left in the bush by lumbermen, large-sized branches, slabs and other mill waste from the lumber industry in Canada, had been converted into pulpwood in 1911, the annual output of pulpwood would have been increased and not a single acre need have been cut over for logs to make wood-pulp only. During 1910, in the United States, six anda half per cent. of the total consumption was from slabs and mill waste. If economy had been practised to the same extent in Canada during the year 1911, as much pulp might have been produced, without cutting one additional pulp log, as is manufactured from over 43,000 cords of wood. This is almost as much pulp as New Brunswick produced in 1911. The sooner such practical economy and utilization of waste commences, the longer will Canada have an adequate supply of pulpwood.

In Quebec, three-fourths of the wood used was spruce. Balsam

TABLE 3.

PULPWOOD, 1911, BY PROVINCES, SPECIES AND PROCESSES: Quantity of Wood Used.

TOTAL—ALL PROCESSES.

Provinces.	Total.	Spruce.	Balsam Fir.	Hemlock.	Poplar.	Unspecified.
	Cords.	Cords.	Cords.	Cords.	Cords.	Cords.
Canada	672,288	568,276	117,400	1,670	4,186	756
Quebec	390,426	292,270	92,756	1,520	3,124	756
Ontario	213,667	193,720	18,957	.....	990	.....
New Brunswick	45,824	44,140	1,684	.....	.....	.....
Nova Scotia	22,221	18,146	4,003	.....	72	.....
British Columbia	150	.....	.....	150	.....	.....
MECHANICAL PROCESS.						
Canada	406,325	316,474	89,473	400	222	756
Quebec	267,707	191,919	74,632	400	.....	756
Ontario	111,597	102,293	9,154	.....	150	.....
Nova Scotia	22,221	18,146	4,003	.....	72	.....
New Brunswick	4,800	3,116	1,684	.....	.....	.....
SULPHITE PROCESS.						
Canada	214,595	185,187	27,124	150	2,134	.....
Ontario	101,230	91,427	9,803	.....	.....	.....
Quebec	76,191	56,736	17,321	.....	2,134	.....
New Brunswick	37,024	37,024	.....	.....	.....	.....
British Columbia	150	.....	.....	150	.....	.....
SODA PROCESS.						
Canada	51,368	47,615	803	1.120	1,830	.....
Quebec	46,528	43,615	803	1,120	990	.....
New Brunswick	4,000	4,000	.....	.....	.....	.....
Ontario	840	.....	.....	.....	840	.....

fir made up 23.8 per cent., and the remainder consisted of small quantities of hemlock and poplar. Only Quebec cut all four species used for pulpwood in Canada in 1911. No hemlock was reported from Ontario or Nova Scotia, while New Brunswick used spruce and balsam fir only. In Ontario, spruce made up nine-tenths of the pulpwood used, and balsam fir nearly four-fifths; less than one per cent. wos of poplar. In Nova Scotia, more than four-fifths (81.7 per cent.) of the wood used was spruce, 18 per cent. was balsam fir, and the remainder (0.3 per cent.) was poplar. In New Brunswick 96.4 per cent. of the wood was spruce, and the remainder balsam fir.

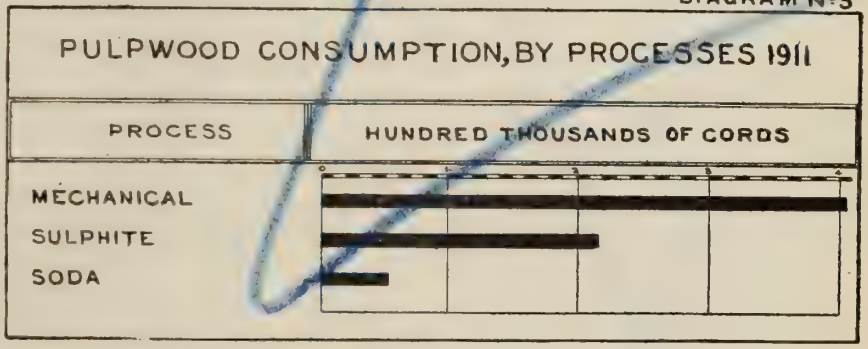
Three-fifths, or 60.4 per cent., of the pulpwood manufactured in Canada in 1911 was manufactured by the mechanical process. The sulphite process consumed nearly one-third, and the remainder (nearly 8 per cent.) was manufactured by the soda process. Quebec made two-thirds of the total mechanical pulp in Canada, more than twice as much as did Ontario. Of sulphite pulp, Ontario produced the most, with Quebec second. The latter province manufactured nine-tenths of the pulp made in Nova Scotia, while over four-fifths of New Brunswick's output was manufactured by the sulphite process. Of the remainder, about half was produced by each of the other processes.

Spruce, as in former years, was the chief wood used in each process. More than half (57.5 per cent.) was made into mechanical pulp; more than one-third (33.8 per cent.) was manufactured by the sulphite process, and 8.7 per cent. by the soda process. In 1910 the proportions were 68.8 per cent. by the mechanical process, 28.7 per cent. by the sulphite process, and 2.5 per cent. by the soda process.

Balsam fir is being used more than formerly in the mechanical process, and less in the sulphite process. It has also been used in the soda process for the first time in1911. The proportions were, in 1911: mechanical, 76.2 per cent.; sulphite, 23.1 per cent.; and soda, 0.7 per cent.; and in 1910: mechanical, 53 per cent.; sulphite, 47 per cent.

Two-thirds of the hemlock used (67.1 per cent.) was manufactured by the soda process; nearly one-fourth (24 per cent.) by the

DIAGRAM No3



mechanical process, and the remainder, (9.0 per cent.) by the sulphite process. In 1910, the proportions were: soda, 84 per cent.; mechanical, 16 per cent.

Although the physical properties of poplar do not adapt it for grinding by the mechanical process, 5.3 per cent. of the poplar was manufactured by this process in 1911; 51 per cent. was manufactured by the sulphite process, and 43.7 per cent. by the soda process. These proportions did not differ materially from those of 1910.

In the United States, the percentage of ground wood-pulp is decreasing. In Canada, it was abnormally high in 1910, owing to the interruption of manufacture by the sulphite mills of New Brunswick. The proportion of ground pulp manufactured in Canada in 1909 was 73.1 per cent.; in 1910, 78 per cent.; and in 1911, 72.9 per cent.

An unlimited supply of clean water is a necessity in the manufacture of wood by the mechanical process. A species of wood is required which has a long, loose fibre, which will not lose its shape and texture in the grinding. For these reasons, Quebec, with its spruce and balsam fir tracts and numberless waterfalls, is the province best adapted for mechanical pulp manufacture; 68.0 per cent. of the pulpwood used in this province is manufactured by this process. In Ontario 53.3 per cent. of the pulpwood is ground; all of Nova Scotia's output is manufactured in this way, and one-tenth of New Brunswick's.

Spruce furnished 77.6 per cent. of the wood used for mechanical pulp in 1911, and balsam fir 22.5 per cent., with small quantities of hemlock and poplar making up the balance. In 1910, the proportions were: spruce 83.2 per cent., balsam fir 16.6 per cent.

The average cord of wood reduced by the mechanical process in 1911 produced 1,783 pounds of pulp. This is 125 pounds less per cord than were produced in 1910, and 133 pounds more than in 1909; but these comparisons depend greatly on the relative condition of air-dryness of pulp. Slightly over half this amount of pulp is produced per cord of wood by either the sulphite or the soda process, but the quality of texture is much better. The paper used in the

average newspaper of to-day is composed of about 25 per cent. of sulphite fibre and 75 per cent. of the ground-wood fibre made by the mechanical process.

Sulphite Process

Of the wood used in the sulphite process, 86.3 per cent. was spruce, nearly half of which was from Quebec, and the same province used 2,134 cords of poplar to make sulphite pulp.

The average production of pulp for every cord of wood used in the sulphite process during 1911 was 1,029 pounds. This is 32 pounds more than last year, but these figures are not very significant, since, as with the mechanical pulp, they depend largely on the residue of moisture.

In British Columbia, experiments are being carried on with the sulphite process, and, in 1911, 150 cords of hemlock were used in the manufacture of paper.

Soda Process

Canada has the distinction of having the oldest soda mill in America, although the process is, at present, not in general use, and is found only in a few mills. About three times as much, however, was produced in 1911 as in 1910, and the growth of this branch of the industry may be expected to continue in the immediate future. The increase of kraft paper, for which a few mills are now being equipped, will result in a large manufacture of soda pulp.

The soda process was the principal method used in the reduction of hemlock. Small quantities of poplar and balsam fir and a large quantity of spruce were also used in 1911. Of the total, spruce formed 92.7 per cent.; poplar 3.5 per cent.; hemlock 2.2 per cent. and balsam fir 1.6 per cent., the last-named species being considered unsuitable for this process.

Quebec manufactured 90.6 per cent. of the pulp made by the soda process; 8.3 per cent. of the soda was from New Brunswick, and 840 cords of poplar consumed by this method in Ontario made up 1.6 per cent. of the total.

The average amount of soda pulp produced per cord was 939 pounds, or 90 pounds less than by the sulphite process.

The annual consumption of pulpwood per mill in Canada during 1911 was 12,450 cords, as compared with 11,735 cords for 1910 and 12,442 cords for 1909. The largest mills are those of Ontario, which used an average amount of 15,262 cords. The average consumption per mill in Quebec was 13,944 cords, in New Brunswick 11,456 cords, and in Nova Scotia 3,174 cords. In 1910 the consumption per mill in the different provinces was as follows: Ontario, 14,037 cords; Quebec, 13,710 cords; New Brunswick, 5,658 cords; and Nova Scotia, 3174 cords.

TABLE 4.

PULPWOOD, 1911, BY PROVINCES, SPECIES AND PROCESSES: Number of Mills, Quantity of Pulpwood Used, Quantity of Pulp Produced, Quantity of Each Species of Wood Used, Quantity Produced by Each Process, Total Cost and Average Cost per Cord.

	Total.	Quebec.	Ontario.	Nova Scotia.	New Brunswick	British Columbia.
Number of firms operating	54	28	14	7	4	1
Pulp produced—						
Aggregate tons.	496,833	312,522	140,959	19,099	24,163	90
Mechanical "	362,321	249,055	89,652	19,099	4,515	.....
Sulphite "	110,391	41,766	50,887	.....	17,648	90
Soda "	24,121	21,701	420	.....	2,000	.....
Wood used—						
Aggregate cords.	672,288	390,426	213,667	22,221	45,824	150
Aggregate cost	$4,338,024	$2,516,683	$1,457,224	$111,119	$251,858	$ 1,140
Average cost	$ 6.45	$ 6.45	$ 6.82	$ 5.00	$ 5.50	$ 7.60
Spruce—						
Total cords.	548,276	292,270	193,720	18,146	44,140	.....
Total cost	$3,548,824	$1,904,299	$1,309,301	$ 90,944	$244,280	.....
Average cost	$ 6.47	$ 6.51	$ 6.76	$ 5.01	$ 5.53	.....
Mechanical cords.	315,474	191,919	102,293	18,146	3,116	.....
Sulphite "	185,187	56,736	91,427	.....	37,024	.....
Soda "	47,615	43,615	.....	.....	4,000	.....
Balsam Fir—						
Total cords.	117,400	92,756	18,957	4,003	1,684	.....
Total cost	$ 750,950	$ 582,154	$ 141,259	$ 19,959	$ 7,578	.....
Average cost	$ 6.40	$ 6.28	$ 7.46	$ 4.98	$ 4.50	.....
Mechanical cords.	89,473	74,632	9,154	4,003	1,684	.....
Sulphite "	27,124	17,321	9,803	.....	.....	.....
Soda "	803	803	.....	.....	.....	.....
Poplar—						
Total cords.	4,186	3,124	990	72	.....	.....
Total cost	$ 25,830	$ 18,950	$ 6,664	$ 216	.....	.....
Average cost	$ 6.17	$ 6.07	$ 6.73	$ 3.00	.....	.....
Mechanical cords.	222	.....	150	72	.....	.....
Sulphite "	2,134	2,134	.....	.....	.....	.....
Soda "	1,830	990	840	.....	.....	.....
Hemlock—						
Total cords.	1,670	1,520	.....	.....	.....	150
Total cost	$ 8,640	7,500	.....	.....	.....	$ 1,140
Average cost	$ 5.18	$ 4.03	.....	.....	.....	$ 7.60
Mechanical cords.	400	400	.....	.....	.....	.....
Sulphite "	150	.....	.....	.....	.....	150
Soda "	1,120	1,120	.....	.....	.....	.....
Others—						
Total cords	756	756	.....	.....	.....	.....
Total cost	$ 3,780	$ 3,780	.....	.....	.....	.....
Average cost	$ 5.00	$ 5.00	.....	.....	.....	.....
Mechanical cords.	756	756	.....	.....	.....	.....

Exports and Imports

Canada's foreign trade in wood-pulp has not kept pace with the growth of the industry. Unfortunately, more than half the pulpwood cut is still exported in the unmanufactured form. This is a direct loss to the country, for the increased value due to manufacture is given away. The data in the following tables refer to the calendar years, and have been furnished by the Department of Trade and Commerce:—

TABLE 5.

EXPORT OF WOOD-PULP: 1910 AND 1911: Quantity, Total Value, Average Value per Ton, Per Cent Distribution and Chief Countries Importing.

Kind of Pulp and Countries to which Exported.	1910. Quantity.	Value.	Average Value per Ton.	Per Cent.	1911. Quantity.	Value.	Average Value per ton.	Per Cent.
	Tons.	$	$ cts.		Tons.	$	$ cts.	
Wood-pulp exported, aggregate	328,977	5,694,896	17.31	100·0	259,514	4,902,862	18.89	100·0
Total Mechanical Pulp	288,807	4,234,705	14.66	87·8	221,167	3,436,670	15.54	85·2
Total Chemical Pulp	40,170	1,460,191	36.35	12·2	38,347	1,466,192	38.23	14·8
Mechanical Pulp—								
To United States	214,469	3,450,831	16.09	74·3	219,240	3,408,885	15.55	99·1
To United Kingdom	62,103	657,183	10.58	21·5	1,847	26,185	14.18	0·9
To other countries[1]	12,235	126,691	10.35	4·2	80	1,600	20.00	.....
Chemical Pulp—								
To United States	39,947	1,451,068	36.32	99·5	38,279	1,463,905	38.24	99·8
To United Kingdom	178	7,398	41.56	0·4	68	2,287	33.63	0·2
To other countries[1]	45	1,725	38.33	0·1	.....	.....	.....	.....

[1] France, Belgium, Mexico, Australia, Cuba and Japan, in 1910; in 1911 export was confined to Newfoundland.

Exports of wood-pulp were less by 69,463 tons in 1911 than in 1910. The exports to the United States, however, increased by 3,103 tons, so the decline was entirely in the transoceanic markets. The decrease in this quarter has continued for some years. In 1908, the United States took only 57.1 per cent. of the mechanical pulp exported from Canada, and 79.5 per cent. of the chemical pulp. These proportions have steadily risen, until in 1911 they were 99.1 per cent. and 99.8 per cent. respectively. The export of chemical pulp to the United Kingdom has fallen from 7,519 tons in 1908 to 68 tons in 1911. The mechanical pulp shipped to the British Isles decreased from 78,510 tons in 1909 to 1,847 tons (not one-fortieth as much) in 1911. In 1910, six countries in addition to the United States and Great Britain bought pulp from Canada, to the amount of 12,280 tons. In 1911, the only country other than the United Kingdom and United States purchasing Canadian pulp was Newfoundland, which purchased eighty tons of mechanical pulp. Higher average prices have been obtained in the United States than elsewhere; and the fact that pulp has been imported into Canada in the face of a 25 per cent. duty shows that the home market is not glutted. The home market has increased its consumption from 34 per cent. of the total domtstic pulp output in 1908 to 47.8 per cent. in 1911; but it is not yet equal to the United States market, which consumed 51.8 per cent. The British market took the remaining 0.4 per cent.—a considerable reduction from the percentage of 34.4 in 1908.

Imports

From the statement of pulp imports given below, it would appear that pulp can now be produced more cheaply in Sweden, Norway and Germany than in Canada. The price of raw material is almost certainly greater in these countries, but the lower price of labor and the smaller profits which are satisfactory to capital are factors in their favor. Since Canadian manufacturers must compete in the world's markets with these countries, it is evident that taxation of their limits should be adjusted with due consideration.

The following statement is based on authoritative information supplied by the Department of Customs:—

From	1910	1911
United States	$38,326	$53,167
Sweden	10,966	20,258
Great Britain	10,996	17,265
Germany	10,996	1,720
Norway	10,996	1,361
Total	$48,322	$94,071

According to the Forest Products Bulletins of the United States, that country imported 423,721 tons of pulp in the fiscal year ending

June 30th, 1910, and 550,898 tons in the fiscal year ending June 30th, 1911. On comparing these figures with those of Canada's exports, it will be seen that about half of these imports were from Canada, no account of raw pulpwood being taken.

The export of pulpwood in a raw state shows a considerable decrease in 1911, being less than at any time since 1907. The decrease is entirely in the province of Quebec, both Ontario and New Brunswick showing an increased export as compared with 1910. All raw pulpwood is exported to the United States.

In Table 6, which is based on authoritative information supplied by the Department of Customs, a detailed comparative statement is given of the quantities of pulpwood manufactured in Canada and that exported raw.

In 1911 some 21,401 cords less wood were cut for pulp in Canada than in 1910, and 95,292 cords less were exported.

Over 55 per cent. of the pulpwood cut in Canada during 1911 was sent out of the country without further labor being expended on it. The United States manufactured it into pulp and paper. The amount paid for this wood was $5,340,592, or an average of $6.29 per cord. As the average paid by Canadian mills was $6.45, this is an average of 16 cents per cord less paid for exported pulpwood, at the point of shipment. This difference is comprehensible when it is remembered that the great bulk of the pulpwood cut for export now comes from private lands, which are generally more accessible thant he Crown lands from which the domestic supply is largely drawn. It is also probable that wood of inferior species, cuch as hemlock and poplar, made up a large proportion of the export.

From bulletins of Forest Products of the United States it is seen that approximately one-third of the pulpwood imported by that country is manufactured into mechanical pulp and two-thirds into

TABLE 6.

Canadian Pulpwood Exported Unmanufactured vs. That Manufactured in Canada, 1910 and 1911: Quantity, Total Value, Average Value per Cord and Per Cent Distribution.

	1910.				1911.			
	Quantity.	Value.	Value per Cord.	Per Cent.	Quantity.	Value.	Value per Cord.	Per Cent.
	Cords.	$	$ cts.		Cords.	$	$ cts.	
Pulpwood produced in Canada	1,541,628	9,795,190	6 35	100·0	1,520,227	9,678,616	6.37	100·0
Manufactured in Canada	598,487	3,685,154	5.99	38·8	672,288	4,338,024	6.45	44·2
Exported in raw state [1]	943,141	6,210,042	6.58	61·2	847,939	5,340,592	6.29	55·8
Exported from Quebec	779,000	5,090,000	6.53	82·6	636,136	3,958,423	6.22	75·0
Exported from New Brunswick	90,000	647,000	7.19.	9·5	122,698	810,959	6.61	14·5
Exported from Ontario	74,000	473,000	6.39	7·9	89,050	570,990	6.41	10·5

[1] A very small quantity was exported from Nova Scotia.

chemical pulp, and that a cord of wood produces about one ton of mechanical or half a ton of chemical pulp. This means that from the 847,939 cords of Canadian pulpwood sent to the United States in 1911, 282,646 tons each of mechanical and chemical pulp were made. The value of these 565,292 tons of pulp, for which, in the form of pulpwood, Canada received $5,340,592, was, at the average prices ($15.55 and $38.24 respectively) paid by United States importers of mechanical and chemical pulp, $4,395,145 and $10,808,383, or altogether $15,203,528. Thus Canada got little more than one-third of the amount she would have received if all the pulpwood were converted into pulp on Canadian soil. As the United States do not export two per cent. of the amount they import, and derive nearly one-third of their total consumption from Canadian sources, there need be no fear that a market for Canadian wood-pulp would be lacking.

As the report of the United States pulpwood consumption for 1911 has not been issued, comparisons cannot be made between the two countries for 1911. In 1910, however, the pulpwood shipped from Canada, consisting of spruce and poplar logs, furnished 23 per cent. of the entire pulpwood consumption of the United States. This means that 63 of the 272 pulp-mills of the United States ran for the year, employed help, and paid profits on raw products furnished by Canada. The four most important pulpwood states of the union benefited from Canada's resources as follows:—New York state drew nearly one-half (47 per cent.) of its pulpwood from Canadian forests; 18 per cent. of Maine's consumption came from Canada; 2 per cent. of Wisconsin's, and 52 per cent. of New Hampshire's were from the same source.

If the pulpwood exported in 1911 had been reduced to pulp in Canada, it would have supplied 68 mills of the average size of those in Canada. Thus one hundred and twenty-two mills instead of fifty-four would have been operating in Canada, employing Canadian labor and advancing Canadian industry.

The provincial laws affecting the export of pulpwood within the exporting provinces have changed considerably in 1911. In 1909, pulpwood from private lands in Ontario and from all lands in Quebec and New Brunswick could be shipped to points outside of Canada. In that year, however, the province of Quebec issued more restrictive regulations, which came into force on the 1st of September, 1910, prohibiting the export of unmanufactured wood cut on Crown lands within the province; and in 1911 New Brunswick passed legislation to the same effect, coming into force on the first day of October of that year, too late to affect the 1911 export trade.

The effect of the Quebec legislation is noticeable this year. The export of raw pulpwood from that province was decreased by 142,864 cords, or 18.3 per cent. Its domestic consumption increased by 47,671 cords, or nearly 14 per cent, and three new mills were started in addition to several others under construction. In the other provinces taken together, the export of raw pulpwood incerased by 47,662 cords, or 29 per cent.; the domestic consumption was increased by 26,130 cords, or 10.2 per cent.

Montreal Sustains Good Buying

General Satisfaction over Prevailing Conditions—Dimension Timber in Demand—An Excellent Season

Montreal, June 26th (Special correspondence of the Canada Lumberman):—With well sustained buying of all kinds of lumber, trade remains in a satisfactory condition. Indeed, for certain lines the demand is bigger than the supply, particularly of dry lumber, and it is almost impossible to obtain birch. Without exception, lumbermen express satisfaction not only with existing business, but with the prospects for the immediate future. As long as the building boom continues, there is certain to be activity in lumber. With the briskness indicated, prices naturally have a tendency to advance, and quotations all along the line are firm.

There is an excellent call for dimension timber, and with the large contracts which are being let all over the country, the outlook for this section of the trade is very good.

Export business to Great Britain has been to some extent interfered with by the strike in London, which has had the effect of tying up vessels trading between that port and Montreal. Then, too, there has been an advance of 10s. per standard in the freight rate to Great Britain, and this naturally is calculated to restrict transactions in view of the keen competition on the other side of Russian lumber.

Fortunately better news is to hand in reference to the supply of cars and the congestion of the terminals. Cars are now coming forward at a greater rate, and although the yards are still full of freight, the position is more satisfactory than it was a short time ago. It is now admitted by the railway companies that trade has grown faster than they can handle it, although the Grand Trunk Railway Company states that from now on there will be a prompter unloading and delivery of goods.

There has been a change for the better in the ground wood situation; the demand has considerably increased, and the prospect is that shipments will go forward with more briskness, and that before a month is over stocks will have been reduced to a minimum; in fact, a shortage in the fall is expected.

The proposed freight increase on Canadian pulp wood to United States points is one cent per 100 lbs., or 35c. a cord, and it is understood that the higher charge will come into effect in September. The American interests, who naturally object to this advance, threatened reprisals in the form of securing bigger freights on Canadian pulp and paper, but in spite of this, it is believed that the railway companies will enforce the increase on pulpwood going to the United States, on the ground that the traffic is now unprofitable.

New Maine Forestry Office

Mr. James W. Sewall, who has acted as treasurer and manager of the Forest & Timber Survey & Exploration Department of the Appleton & Sewall Company, has left that concern to open a forestry office at Old Town, Maine. Mr. Sewall has associated with him, almost the entire forestry staff of the Appleton & Sewall Company, and is prepared to render first-class services to any individual or corporation requiring estimating of timber, surveying or mapping of wild lands. Mr. Sewall will not have a department of tree surgery, but will carry on straight forest engineering only.

At a meeting of the shareholders of the Spanish River and Ontario pulp and paper companies, held last month at Torinto, the Ontario Company was absorbed by the Spanish River shareholders on the basis of two shares of Spanish River for three of Ontario. The capital of the parent company will be increased to three million dollars of preferred stock and four millions of common. One million of common will be used for the absorption of the Ontario company and the remaining million each of common and preferred will be held in the treasury for possible extensions.

Retailers' Ethics, Status and Problems

Relations with the Wholesaler and Salesman—A Statement of General Principles—Manner and Cost of Doing Business

At a recent meeting of the Ohio Association of Retail Lumber Dealers, a number of addresses upon subjects of every-day practical interest were discussed by the members who delivered addresses. Among the subjects was an interesting one entitled "Why I Like (or Dislike) the Retailers," which was delivered by Mr. W. E. Ford. Mr. Ford's remarks in part were as follows:

Why I Like (or Dislike) Retailers

By W. E. Ford

After mingling with lumber dealers for more than twenty years, I am convinced that as a whole no more honorable body of business men exists in any profession than is found in the retail lumber business.

I say as a whole. Of course there are some exceptions to this rule in the lumber business as well as in all others, and to these exceptions to the rule, I wish to address myself on behalf of the salesmen.

All sensible dealers will admit without argument, that the traveling salesmen are their educators. They come to you every day with the lumber market fresh and new, and they come not only one, but three, four or a dozen, each one giving you the very latest price on his particular kind of lumber, or doors and sash, until by night you have had the conditions so thoroughly drilled into you, that you are perfectly posted on the market condition and, with all this, only to start in on the following morning with the same course of training, And this is continued day after day, until no matter if your head is as dense as a piece of eucalyptus, you are simply forced to know lumber prices.

Now, these men come to you at great expense to the firms they represent, and inconvenience to themselves. They not only have the expense of salary, hotel bills and railroad fares to face, but they have to contend with the annoyance of everything incident to a traveling man's life. You expect him to appear in your office as a gentleman, and you have a right to insist that he does that. Now, what is your duty toward him and the firm he represents? Do you think it would be right to look over your last year's estimates, before you recognize the salesman? No! And yet this is sometimes done. Do you think it would be proper to ignore the salesman, while you go on swapping stories with one of your continuous bench warmers? No! Yet, we have seen this done. What would you think of the firm he represents, should you step into their office and receive such discourteous treatment? I dare say that under such conditions, if your thoughts were audible, they would be more forceful than elegant.

I beg of you put yourselves in the salesman's position. Meet him on the level; make him respect you by showing him the courtesy due a gentleman, and then if he persists in boring you, give him the boot. In the lumber business disputes and disagreements are bound to arise, and always will, as long as we depend upon the judgments of men in the grading of lumber. But in the adjustment of such claims, always remember the divine injunction of that Greatest of All Teachers, "Whatsoever ye would that men should do to you, do ye even so to them."

Wholesaler and Retailer

A good address was delivered by W. L. Whitacre, on "The Wholesaler and the Retailer." The talk was in part as follows:

You have heard of the good qualities of the salesman, and how well the retailer loves him, and how the world would be a blank but for him.

This is surely a gospel truth, for I veritably believe that the business and the life of the retailer would be rather dull were it not for this ray of sunshine and information who is constantly visiting you at least once a month—and you look for him, too. He is one of your invigorators, and suggesters, and is nearly always bound to have something up his sleeve that will make your method of business more potent in bringing the desired results, and along with his free offers of ideas, he nearly always tells you that he has just the class of lumber, or the styles of front doors or porch columns to sell you which will work wonders as advertisers to you, and will make your yard distinctive as one having all of the very latest patterns of No. 1 common flooring, or a new style of 8 x 10 barn sash.

Commercialism has become so vast as to embrace the entire world, and so minute as to permeate every hamlet of every country.

The commercial traveller is the point of contact between the wholesaler and manufacturer, and the retailer, and is a wonderful force in the dissemination of the news of the day, together with the live, up-to-date principles of business.

No ambassador or minister carries greater trust or responsibility when he goes forth to serve his country than does the real true salesman who goes about representing his firm.

Evolution of the Wholesaler

The wholesaler of to-day is the natural result of the meetings and good friendships established between the travelling lumber salesman and the retailer, and has come from a laudable ambition on the part of the salesman to be in a measure his own master, and thus place himself in a line to better serve his many good friends, the retailers.

The wholesaler is strictly a creature of evolution, and we find that this is brought about largely upon the conditions that make it incumbent on the retailer to have something which he can be assured is strictly first class, and which he can feel assured, when his friend the wholesalers tell him it is O. K., that the stock will come in just as represented.

The retailer has not the time, nor can he afford for his own particular wants to go and look up the articles that will best suit his trade or community.

The wholesaler, through his many years of experience from handling the lumber from the stump almost to the consumers' hands, and from his keen observation of the wants and usages of the various sections into which his travels carry him, is particularly fitted to act as your medium for the purchase of the best stocks that the various mills manufacture, and also to guard you against the many poor items that they may make along with the cream.

I feel that you all appreciate the peculiar fitness of these men who have inspired your confidence during all the years that they have been calling upon you.

You also know that they are proficient and reliable in their selection of stocks and the particular ones from whom you buy are honest in their representations to you of what stocks are, and what the conditions at the mills are. They usually are in position to have advance information on market conditions, and are free and willing to share such information with you, thus putting you in position to cover your short wants, or to use care against ordering too heavily in case of an anticipated decline.

Wholesaler Best Informed

The good live wholesaler is possibly the best informed as to general conditions of any one in the business. He knows what is doing at the mills, he knows your conditions, and he knows the general conditions which might affect conditions at either end of the line.

By thus being in possession of all the facts, I believe I am not stating it too strongly when I say that his judgment and advice are correct in all cases, and the wise retailer will always talk with such a wholesaler before he makes up his mind to do this or purchase that block of stock, or make some move that is important to his business for the coming season or year.

I feel that I need not enumerate any more facts concerning the wholesaler, as you are most of you quite familiar with him, and I trust that those who have not given him the careful consideration that they should will revise their ideas, and I know they will prosper even more in the future than in the past.

A Fact Discovered

There is one important fact which every wholesaler knows, and I am glad that many of the retailers have found it out, and that is, that good lumber and sash and doors cost good money to produce, and in this age of the world it is a mighty hard job to get something for nothing. There are still a few retailers trying to do this, but they are mighty few and far between.

The real up-to-date buyer has learned to his sorrow that much shopping and time occupied in trying to get this something for a cheap price has in a majority of cases resulted unfavorably.

A certain retailer informed me not long ago that he had by careful buying and shopping, writing about forty letters, been able to save $8.56 on a car of lumber that I wanted to sell him, and which I had guaranteed him as O. K. and very cheap at the price.

This same man spent at least $15 worth of his time in getting all of these different quotations, and when the car came in I happened to be around, and found him sorting the car over. I did not ask him what he was doing, but I will say that he was not raising the grade any.

Many of the complaints which you have are simply due to the fact that you have over-bought on the car. Some over-ardent salesman comes along and you say that you want a certain grade of stock,

and when he makes you his price you say it is too high, that you are able to buy the same grade at a less price. This salesman, not wanting to go away from an order, takes it, thinking that he has some stock which will get by. He has not the nerve to say to you that he can't furnish you the same high grade stock on which he has quoted you at first, and that he expects to ship from a point where the stock will conform to the price. The consequence is that the car comes in, and you immediately compare this car of $21 flooring with some which you have possibly paid $23 for, and make a kick.

The wholesaler has to suffer, but he is not to blame. It lies with the salesman first, and possibly equally guilty with him is the buyer.

Why Wholesalers Know

My friends, your friends the wholesalers have been to the source of production, and the sooner you learn that when they tell you so, the stock is worth the money, the better you will all be off. I know that you are saying, "I got beat by following this the other day."

Either this same wholesaler was the victim of some irresponsible employee at the mill, or he was dishonest and unfair in his statement. If this latter, you should cut him off your list. If the former treat him as you would wish yourself to be treated. Do not hesitate to count and give him credit with the average on the stock, as well as to deduct the item of 170 feet shortage.

Along this line of the tallying of cars when you receive them from the wholesaler or manufacturer, allow me to say that none are infallible, and the man who claims never to make an error or a mistake, is one who really will bear watching. But from twenty-five years' experience in the lumber business, I wish to say that I never knew of but two firms who intentionally shipped short measure.

To-day I do not think that a single firm intends to do this, and when you are making claims for so-called shortages please take into consideration that an error is just as likely to occur in tallying the stock in your yard as at the point of shipment.

There are still retailers who are wont to accept the very superficial and hurried count of some teamster or hired man and stand on this as absolutely correct, when if they had themselves tallied this same stock it would have conformed to that of the invoice.

The wholesaler wants to know when there is anything wrong, and if you do not report a just kick we have no means of knowing that the mill may be shipping something that we have not bought, and you will be conserving your own interest as well as that of the wholesaler when you take it up at once with him.

The One to Adjust Complaints

The wholesaler being the party who is nearest to reach, and is best fitted to know what is right in the matter, usually can adjust any just complaint to your satisfaction and that of the mill, where if you should be dealing with some one 800 or 1000 miles away, and probably with some officious clerk in the office, your difference or complaints would not receive the same careful attention, and there would be more likelihood of there being harsh words written, and worse feelings engendered.

The lumber business of to-day is a science, and there is no good reason for you to feel that lumber should be getting cheaper or that it will last for always. The timber is now worth so much, the cost of producing so much, and the transportation so much more, and you may rest assured that there will be no great variations in prices, particularly downward. It behooves all of us to conserve our own interests, treat each other by the only code of ethics that will ever amount to anything, that of the Golden Rule.

Speculation in both buying and in selling is not conducive to large profits at the inventory periods, and about the very best rule to follow is to buy as your needs seem to justify, and you will have fewer cut price sales, the market will remain more uniform, and you will be more firmly intrenched in the good graces of your customers, and will have a more kindly feeling for both the wholesaler and the manufacturer.

The Cost of Doing Business

John D. Hicks discussed the "Cost of Doing Business," some of his remarks were as follows:—

It was first suggested that I talk on overhead cost—a phrase that I dislike—a phrase that was probably coined by some one who sought a term to cover that great array of multitudinous facts that enter into the cost of doing business—that we, because we are lacking in an analytical mind fail to take into account, a term that, like charity, is made to cover a multitude of sins.

What we wish to know, is why don't we make more money or perhaps in many instances why don't we make any money?

And in this day when the mail man is bringing to your desk that great load of literature setting forth "Short cuts to business success"—"Sure processes of arriving at costs"—"The magazine system"—and the Lord knows what not, I am coming to you with just a few brief statements and an old fashioned plea. No man knows what it costs to run a business save the man that runs it; no man knows what it costs to manufacture a given article except the man that makes it, and he does not always know or there would be fewer failures.

Why Success is not Greater

I have already given you the principal, the greatest, reason as to why we do not succeed better. We are lacking in that we do not study our own business, do not make a more minute analysis. Let me give you (and I hope you carry it home with you) an old definition of cost. I say old—it is not from the literature of which I just spoke; about the last thing you read in that class was the failure Success—but from John Ruskin, a man who did more for his fellows along this very line than any other of his day. The definition was given by him in 1863.

Value—is the life giving power of anything.
Cost—The quantity of labor required to produce it.
Price—The quantity of labor which its possessor will take in exchange for it.

I have given you this because I feel sure we will all find it advantageous to keep in mind how near synonymous are Cost and Labor.

Find Your Own Costs

Most business men fix the selling price from what they think is the cost price plus a given percentage, which is good provided you are sure as to the cost. And now my plea—find this out for yourself. If some one tells you it cost 15, 16 or 20 per cent. to do business, don't use his figures. He doesn't know what it costs you. Analyze your own business—be sure that every item of expense that represents labor is cost and that it goes into your figure on which you expect to base your selling price. If it be hay and corn, wagon and driver or administrative, be sure your sometimes called salary account goes into your general expense. Get you a vest pocket book for this purpose and analyze as it comes to your notice. If some man tells you it cost $13 a thousand to handle dimension and sheathing, don't take his figures for your use. Find out for yourself. This is no arduous task I am asking you to impose upon yourself. You will find it pleasant and one of the most profitable things you have ever done.

Here are a few things that I have found it necessary to figure into expense. You may find others. You should figure in interest on your capital stock. We will say you have a business capitalized at $30,000, of which $7,000 is yours. Where did you get it? Did you steal it? No—the probability is that you worked like thunder for it. You are entitled to your earning on that capital. You are not only entitled to it—you are criminally negligent if you don't get it. Most men say add 6 per cent. I say add 3 per cent. I don't know where I can get an investment for my money absolutely safe that will pay 6 per cent., without lying to the tax collector.

You have depreciation. You may say you keep up your repairs and this goes into your expense account. But nevertheless there is depreciation. The insurance people are the best authority and they will tell you that despite your repairs still there is depreciation.

Interest and Discount

Most merchants keep an interest account and a discount account, and carry the hope that the discount account, which is in on the credit side of the ledger, will overbalance the interest account, which is on the debtor side of the ledger. These accounts are not closed until the end of the business year. Whence comes the interest account? At some period during the year's business your volume of trade has so increased or business become so bad that you are compelled to go to the bank for money. And the banker gets the interest. If your interest paid exceeds your discount taken to be sure that you figure it into your expense. It probably will.

Figure in your loss by bad accounts. You all have them, more or less—mostly more. The brightest credit man in the United States to-day can hope to minimize them only to a certain extent. Good authorities say that the best managed business will show a loss from bad accounts of at least one-tenth of one per cent. Determine for yourself your average loss for the last five years and be sure that amount becomes a part of this gross on which you expect to base your selling price—because it is so much better to anticipate it in the gross than to deduct it as a whole from the net profit at the close of the year's business. You can depend on old figures in present day problems. The mill loss on lumber ten years ago is not the loss of to-day in the mill. As the price went up the grade has also gone down.

Watch your labor and cut out the unremunerative or unnecessary labor; that is merely a matter of habit.

Get a Little Book

Get a little book and work out your own cost in your own way. Cooperate with your competitor to find out the real cost of doing business. That eliminates bad competition. The restriction of business profits within legitimate bounds depends on just two things—

full and free competition and that competition intelligent competition. Bad competition produces the two extremes—millionaires and paupers; but cooperation will tend toward a more equal distribution of wealth.

Last thought: The gross amount of all items of expense will be a certain per cent. of your gross sales; and when you come to apply this per cent. be sure you do not err.

For example: If the cost of doing business is 20 per cent. on your gross sales do not add to the wholesaler's price 20 per cent., or you will realize only 16 2/3 per cent. If you want to add 20 per cent. to cover the cost of doing business you must add 25 per cent. to the price you pay the wholesaler for the material.

The Right Way to Sell Lumber

By E. H. M.

This subject is by no means a new one, but on the contrary is one which has been up for discussion on several previous occasions and has, upon each of these occasions, been ably handled by men of undoubted ability to enlighten upon this branch of our industry. It shall be my purpose, however, to treat this subject in a somewhat different manner than has characterized its handling heretofore, and in this way I hope to avoid the appearance of plagiarism upon the sayings of those who have treated the subject before. Instead of discussing the strong and weak points of making a specific sale, or of the efficiency or inefficiency of the sales managers in charge of the merchandising end of our industry, I deside to discourse upon the "Best Methods of Selling Lumber" and by "Best Methods" I mean, how can we realize most for our product under all circumstances?

I would like to point out as the ideal merchandising condition an absolute absence of competition, but realizing as I do the impossibility of a realization of this ideal condition, then I would say that next to the ideal condition, give me intelligent competition. By intelligent competition, I mean the direction of salesmen and sales methods by well-informed authority which at all times considers market conditions, studies the wants of the consumers and keeps abreast of the times by knowing the conditions of stocks, both in the hands of producers and the consumers as well, and is thus enabled in a measure at least to anticipate the tendencies of the market for the immediate future.

I submit that these, and a great many other essentials, cannot be obtained by the man handling the sales of small manufacturers for the reason that his total production is not of sufficient proportions to justify covering the entire field, and it is with the sales departments of these smaller manufacturers that we often find the commission man a large and potent factor in making the price, not only for the concern whose product he sells, but in doing that he also establishes the price for competing concerns. This would seem to indicate that the product of any plant can best be marketed, owing to the great many kinds and grades of lumber manufactured by every plant, only by covering almost the entire consuming territory, thus reaching the proper market in which to sell every grade and kind of lumber.

Viewing this matter from a purely economic standpoint, it would appear that only by recognizing and establishing a community of interest among the manufacturers whose production is limited can the best results be obtained. This could be done, in my judgment, by establishing sales offices through which ten or a dozen mills can market their product on an equitable basis and to all parts of the country, because the aggregate volume of these mills enables the sales office to send sales representatives into all of the consuming territory, thus enabling each grade and kind of lumber to seek the market where it will command the highest possible price.

These sales offices could be owned by the manufacturers whose product they handle, thereby insuring to the manufacturer proper participation in any possible profits which may inure from the sale of his lumber both as to any higher price which he may be able to serure and also from any moneys which may be earned by the selling office in the form of profits for dividend purposes.

From a number of years' experience in the merchandising of our commodity, I have been able to observe a great many things which, in my judgment, are operating against the economical handling of our product. For instance, it is not infrequent to see as many as six or eight salesmen calling the same day on the small one or two-yard town buyers. These men often represent mills located geographically in the same neighborhood—mills whose product is about equal as to grade and manufacture, and whose product could be harmoniously handled through one selling office and the expenses of these various salesmen, in excess of one, could be converted into the "Profits and Distribution" account; and another feature which might be considered in this connection is the element of competition which might be less vicious with five of the six salesmen eliminated.

The salesman for the one mill often finds his stocks broken on a great many items and he is forced to pass up a great many orders which he could doubtless have accepted had he represented ten mills instead of one, as it seldom happens that all of the mills are short on the same thing at the same time. This, however, only goes to make up the higher cost of selling on the unit, or independent plan.

Another matter which appeals to me as an argument in favor of the selling office, is the trade in car material. Every salesman realizes the value of a personal acquaintance in selling lumber. This is as true in selling to purchasing agents for railroad and car companies as it is with the yard trade. This acquaintance can only be established by frequent visits on the part of the salesman. The salesman can only visit the purchasing agent gracefully when he has something to sell. The average amount of car siding, lining and roofing as produced by one mill would not necessitate many or frequent visits to the purchasing agent, at least not with any degree of economy in the selling department of his business. But, assemble ten or more of these mills into one selling organization and you at once establish a dignified source of supply with sufficient material to offer to cause the purchasing agent to take notice of you. He recognizes here a source of supply where he can turn for his requirements in such amounts as to justify the top of the market as to price. These buyers of large quantities of this class of material prefer to place their orders in large lots, thus simplifying, in a measure, the details of the transaction and unifying the policies of the parties at interest.

Another feature which seems to me to argue for the establishing of these selling offices is the advertising or publicity feature. A number of mills, whose interests become amalgamated in one selling office, can, at a nominal cost to each, advertise their business and take proper rank with the trade, whereas, acting singly these various mills would find the cost of a vigorous and effective advertising campaign exceedingly heavy and out of proportion.

But to sum up this matter and to conclude, I submit the following: That for lack of co-operation and amalgamation in the merchandising of our products, we are employing ten times the number of salesmen to sell our product that would be necessary if the manufacturers could group their products into say ten mills to one selling office; that they could lose none of their identity or independence by the process, as these selling offices could be owned by the mills whose product they handle; that competition would be less various with nine of every ten salesmen eliminated; that the mills would realize more money for their lumber because of the stronger canvass for the business under the increased volume and essential competition; that because of the larger aggregate of supply under the amalgamation of interests, one would be able to reach and hold a class of trade which otherwise one could not afford even to call on; that one could afford, under this arrangement, to employ at a nominal cost to each mill at interest, the very best and ablest lumber merchants to handle the merchandising end of the industry; that, by the employment only of high-class merchants in the sales departments, one would establish intelligent competition and insure for your product at all times the highest price that the market conditions will justify or permit, which, in my judgment, constitutes the "Right Way to Sell Lumber."—Pioneer Western Lumberman.

The Big Sideline for Retailers

The big side line to the retail lumber yard and to the jobbing planing mill is contracting. This is not news to some, but it does need new, fresh, or greater attention. It would perhaps be news to some, also, to realize just the extent this idea has gained ground during the past year, says the St. Louis Lumberman.

It was brought freshly to mind one day recently in a conversation with a retailer from a city in which there are half a dozen yards. Something was said about the contractors and contracting, and his answer conveyed the idea that he was in the contracting business. When asked about it, he said, yes, and also that every lumberman in the town, every retailer, did contracting. He said some of them felt they had to do it to handle their business right, and after part of them got at it others had to take it up to protect themselves, and the strange thing about it is that while evidently some of them took it up reluctantly, all seem to be well pleased with it and figure that they are better off by it.

This idea of contracting as a side line to the lumber and planing mill business has many angles to it, many different points from which to view it, and it is well to look at it from all sides that you may have a thorough understanding of it and know whether or not it is best for you in your own community.

There is one case in mind that illustrates a peculiar angle of it. Where a man with a lumber yard also equipped a planing mill department, he didn't go into it on a large scale, but put in enough machines to supply the needs of his trade for old stock, and while occasionally he had to send to outside mills for some special thing, he could generally supply his trade with standard goods and from his own mill, and get fairly prompt action out of it.

One of his important customers who is a contractor in his own

town got the notion that he would buy a little planing mill machinery and set up a shop of his own. This idea got around to the lumberman before it was put into execution. Then the lumberman had an interview with this contracting friend and told him in substance that if he (the contractor) put in his own planing mill and went to doing his own work in that way, that he (the lumberman) would simply go into the contracting business. The upshot of it all was that the contractor concluded that he would rather hold to his business and buy his lumber and millwork from the lumberman than have this lumberman in competition with him in the contracting business, and that's the way they are jogging along to-day.

There are some localities where the lumbermen and contractors and builders work so nicely and harmoniously together that it is not advisable for the lumberman to branch out into the contracting business. He is not generally inclined to do so either, when surroundings are as favorable as this. But, unfortunately, these instances are not very plentiful, and it is too often the other way around.

When the contractors and builders in a community are prone to dicker around and try to get cars of lumber direct and inclined to buy from mail order houses, sash and doors and things of that kind, and their trade is hard to hold, about the best way for the lumberman to save himself, hold his trade, and meet the competition of mail order men and others, is to get a good crew of men and go into the contracting business himself .

Moreover, he can go further than that if he has plenty of capital. He cannot only contract to build houses for others that are planning to build, but he can plan and build houses for sale himself. Take up the building business, and if he handles the matter well make of this a good investment for surplus capital and an excellent feature of his lumber and contracting business to take care of crews during dull times and to use up material that may be accumulated on hand.

The argument here for the retail lumberman applies equally to the planing mill man and often there is a three-sided combination of lumber yard, planing mill and contracting. There are some planing mill men who claim that without the contracting end of their business they would make but little money in the planing mill. There are others, of course, who make good money with the planing mill alone and without contracting, and no matter whether a man contracts or not, each branch of his business should make its own profits. Otherwise he is sacrificing one to the other, and that is never real good business.

There is one thing that a combination of this kind will do, It will make for more harmony in working together between the lumber yard or mill and the contractor on the building than it is possible to get out of it any other way. In planning buildings and using stock the builder can often humor the mill and the mill can humor the builder, and they are more likely to do this when both are owned and operated from one common head.

So, when the matter of branching out or taking up side lines is up for consideration, let this idea of contracting receive the lion's share. It is the biggest thing in the way of side line connected with the lumber business. So big, in fact, that it is really a side partner to lumbering and to the planing mill, and the indications are that in the future there will be much more of it than in the past. In fact, the record of the past year, if it could be produced, would show, perhaps, more retailers and planing mills having taken up contracting than ever before in the same length of time.

What is Overhead Cost?

We have gotten into the habit of considering overhead cost of manufacture as meaning all of the cost of running the business except that of materials and productive labor, says Chas. Cloukey, in the Wood-Worker. That this is true in the main goes without argument; but it would seem that the shortcomings of cost systems are made up of very perplexing and annoying exceptions to easily-understood rules.

In many manufacturing plants the working time of some of the employees is divided up between productive and unproductive labor. Of course, the time sheets are supposed to set forth the correct amount of time spent on each class of work, and if they are faithfully made up, it is a matter of auditing to separate them. However, when we come to give these working hours their equivalent in dollars, we have two or more separate problems in hourly rates.

How do we get at a rate for productive labor in the first place? It is the practice of some concerns to divide all the overhead pro rata among the productive labor. Of some others, the plan is to lay some of the burden upon the materials used, the logic of this being that both material and labor are operating costs which are subject to apportionment to the several items manufactured.

At any rate, we will suppose that the hourly schedule of wages includes the wages actually paid and their just share of the overhead, and that the sum is as nearly correct as may be. With this rate in mind, we take the time sheet of a man who has spent half of the day working at his machine, and the other half of the day working on his machine, or, in other words, repairing or putting it in order, without producing any output, and charge, say, four hours to the job at 75c. an hour. Now, it is very clear that the other four hours is an overhead item of itself, and is it good business or good accounting to add overhead to overhead? Many persons of experience, I think, would answer at once that it is not. However this may be, one of the perplexing items which now and then come up and make us sorry that we have not kept up our algebra as we should. If this man has worked under the direction of a superintendent or machinist whose salary is a legitimate overhead charge, then this portion of his time should bear its ratio of said overhead. If the time of machine men is rated higher than the time of bench men, so that a part of the overhead must be earned by the machine itself, then should not its own repair carry a portion of the overhead?

If a man spend an hour lacing a belt which does not delay the operation of any machine, or if he repairs a truck, the bare amount of his wages should be charged to overhead.

Here is another case, of another kind, though, and has to deal with the work of men whose salaries are all charged to overhead of one kind and another. By this I mean improvements to the plant which have been put in by men hired to do maintenance work. It is obvious that the value of these improvements must not be measured alone by the amount of materials used, but the labor expended upon them should be charged against them, together with its proportion of overhead, the same as any other productive labor.

Now, it is evident that work like this is going to complicate matters and make it difficult to determine just what really is overhead, if we are not careful in getting this time from men who are not supposed to keep it, and charging it up at the proper figure. And this is not all, for if we charge up part of our overhead into an asset of the company, that part ceases to be overhead and should be deducted from the same. Here we must be careful again, and not take out of the overhead all the labor we have charged to the improvement, but only that part which represents the actual wages paid to the men or persons involved.

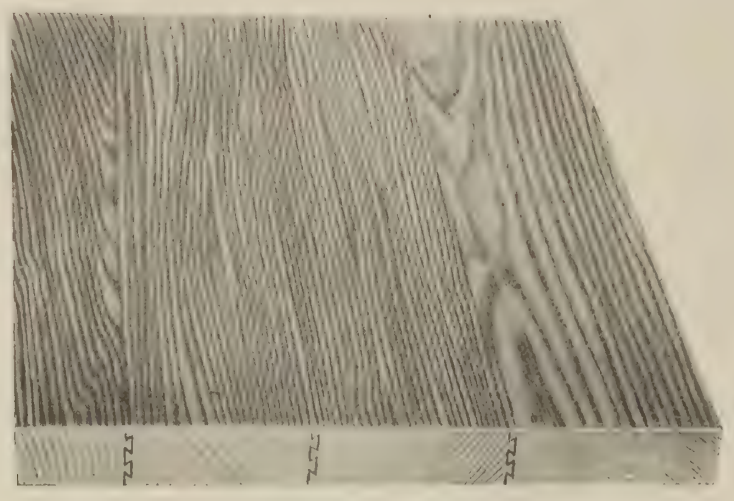
This may seem rather prolix when we consider that the overheads for the coming year are based upon estimates rather than upon absolute figures, but if our preceding years are faulty in their apportionments, of how much value are our present estimates, which are based upon the previous figures?

It is a fact that the very nature of some enterprises makes it much more difficult to determine the proper overhead charges in some cases than in others. For instance, a concern may do a manufacturing business, and at the same time be engaged in each branch of the business, and others in all of them. Certain expenses are peculiar to each department of the enterprise, but the business is run as a whole. We may know what the total overhead is, but it will take good judgment, as well as careful data, to divide it properly, so that our estimates may be reliable.

It is not enough to know that we are making a profit as a whole, but we want to prove that all of our men and machines and merchandise are making their share of profit after paying their share of the expense. And it is a fact that the profit-making employees should not be confined or restricted to those commonly termed "productive labor," but that every dollar of the concern invested in material and labor should return its expense and profit. If a man spends all of his time handling merchandise, then that merchandise is increased in value to the amount of the man's wages, and said wages should be charged up to the material, and not to some other man's work. Just how to do this is the live problem in more than one office, but it we will make a careful analysis of the work done by "unproductive labor," and place the figures in the right columns, there will be a reasonable show for reliable data on overhead costs.

Lumbermen are beginning to study the prospective trade from the Pacific coast through the Panama Canal, having received rates and schedules from Oregon and Washington lately. These give the rate through the canal to New York as 40 cents per 100 lbs., and with an additional 13 cents per hundred to Buffalo by rail the total will be 53 cents, as against 68 paid now all-rail. The Erie barge canal ought to cut this 13 cent rate down considerably, so that there is a prospect that after the opening of the Panama Canal all Pacific Coast lumber will arrive here from the East.

For eleven days a city of Quebec jury heard the libel case of the Chicoutimi Pulp Company vs. William Price. The action was for $25,000, and arose out of a letter published in the Quebec "Chronicle," Montreal "Star," and Montreal "Gazette," signed by William Price, who alleged in his letter that part of his property in Chicoutimi Basin had been taken from him by the pulp company. The jury unanimously decided in favor of the defendant.



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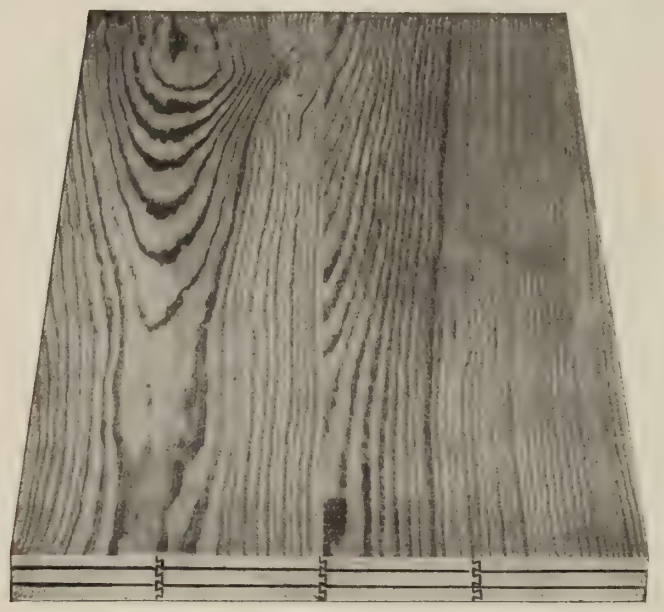

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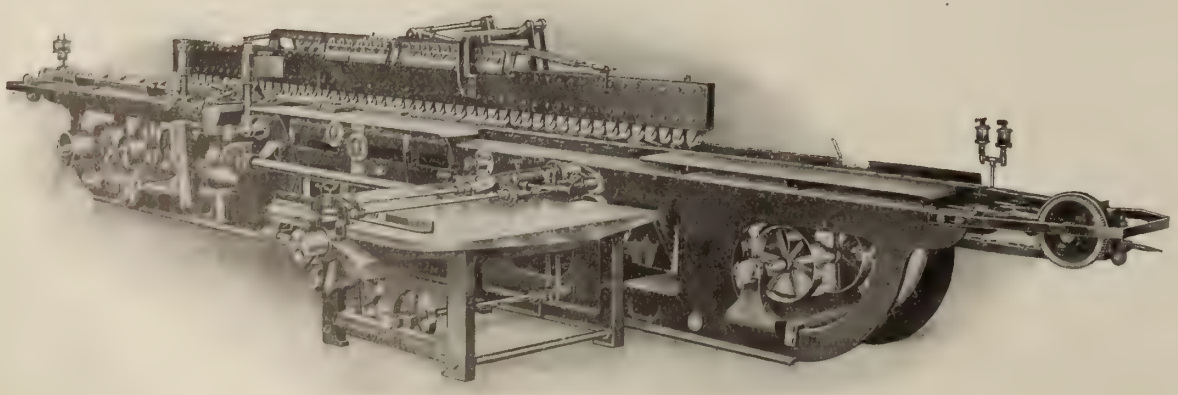


Linderman

means the converting of narr
one-piece en

If you could convert daily 10,000 board ft. of mill culls into 8″, 10″, 12″ or wider width shooks at an average cost of 50c. per 1000, would it increase your profits?

It Does for Othe

The Linderman A

will at one operation cut the dovetail in two boards the side of the machine as one-piece stock. If the machine and another piece is joined to it, and so on it through the rip saw, cutting it to the required wid of another piece.

There is a Linderman machine built to length up to 18 feet, of any thickness from 3/8″ to 4″ dovetail in 1/4″ or any thicker stock.

Just tell us your conditions, and we will tell

We can point the way

Canadia

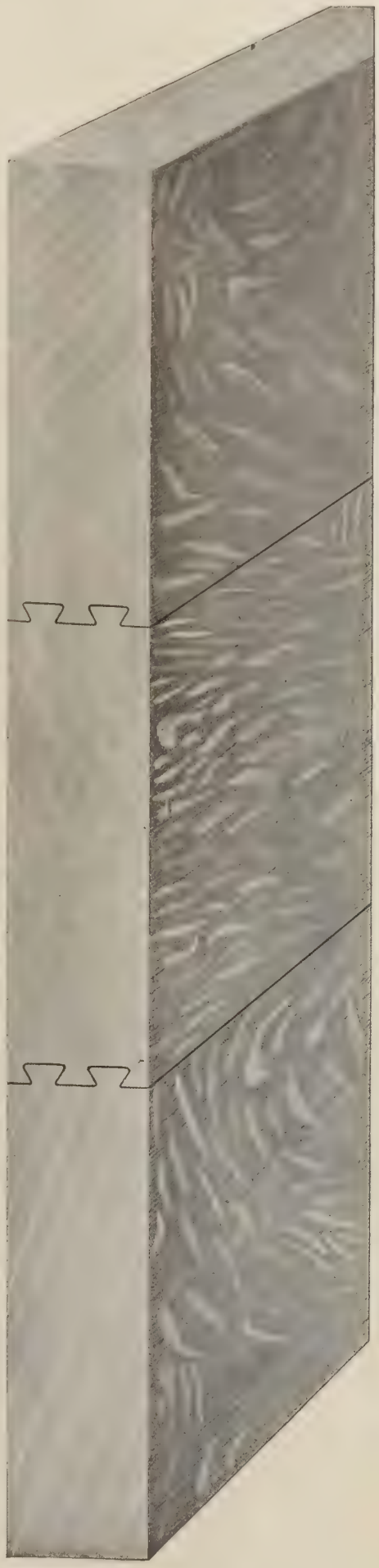
Muskegon, Mich.

ed Box Shooks

width, short or long length lumber into ides, tops or bottoms

or

If you could convert daily 10,000 board ft. of your 2, 3, and 4″ strips —of any length up to 18 feet—into wide lumber at an average cost of 75c. per 1000, would it increase your profits?



---- Why Not for You?

iatic Dovetail Glue Jointer

the glue—slide them together—and pass them out to the operator at l width has not been obtained, this piece is passed back through the e piece is several inches wider than desired, when the operator passes the edging is passed through the Linderman machine to form a part

very requirement,—for working straight or live edge lumber—of any or more dovetails can be cut for re-sawed stock giving a complete

v the Linderman method will help you.

reater profits—Do you want them?

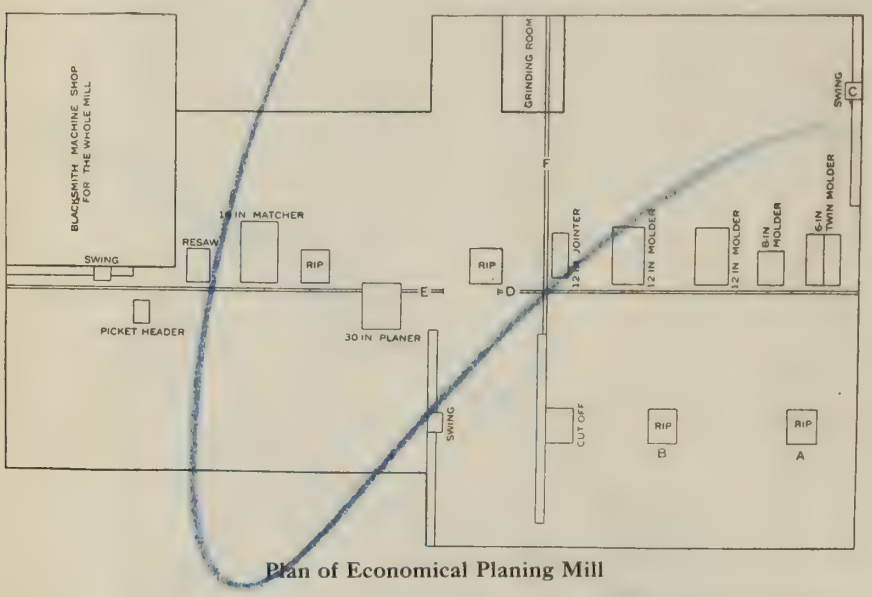
Linderman Co., Limited

Works at **Woodstock, Ont.**

THE WOODWORKER

Plan of An Economical Planing Mill

An economical and practical planing mill plan is given in the accompanying illustration by S. P. in the Wood-worker. The main lineshaft is below the floor, placed in a tunnel 12 ft. square. All of the machines are run with belt-tighteners except the two rip saws, A and B, and the cut-off, C. Each is run by direct motor. The lineshafts, D and E, are run by two 30-h.p. motors. The lineshaft F is overhead and run by a half-twist belt from lineshaft D.



Plan of Economical Planing Mill

Shaft F runs a swing cut-off and a railroad cut-off, also the grinding room. Two 60-in. fans take care of the shavings; they are driven by a direct-connected motor.

The shop is well lighted, both with windows, skylights and swinging doors. The floor is of concrete, making an ideal machine bed, on which trucks are easily managed.

Discrimination in the Buying of Stock

By J. Mason in Wood-Craft

Discrimination or careful selection in the purchase of stock for manufacturing purposes does not mean that a man should buy the highest grade of stock on the market or anything of that kind. It is imperative that we understand this distinction at the present time because there is being offered to and urged upon the furniture manufacturers and other users of hardwood in various forms low-grade stock in hardwoods. It does not follow that because a furniture manufacturer, for example, buys and works up low-grade stock that he will produce an inferior article of furniture or even have inferior wood.

Grade of Hardwoods

The main distinction between low-grade and high-grade stock in hardwood is that mingled in with the good material in the low-grade stock is a lot of defects that must be trimmed out in working to make it clear. When these are trimmed out and clear stock is secured this clear stock is just the same as stock from a board that is clear all the way through. In other words, the clear stock and the low-grade quite commonly come from the same log, a certain percentage of one and a certain percentage of the other. The material is all the same. Indeed, if there is any difference it is probable that lots of the low-grade is superior in strength and of the finest grain, because quite frequently it is the interior or heart of the wood. Lots of the clear stock comes from the outside and is either sappy or close to the sap and consequently is more open than the interior of the tree. It is from this interior that lots of the low-grade comes. Of course, there is a lot of low-grade from the outside, trimmings from cutting timbers and ties.

Stock Cut to Specific Dimensions

Where a furniture manufacturer buys his stock cut to specific dimensions at the mill, discrimination in buying stock quite naturally implies buying the highest grade of material offering, because the stock is already trimmed to size and should be clear and of proper grain. Then the matter of selection is simply one of grading. However, when a furniture factory goes to buy lumber to be cut up and refined at its own plant then it is a different matter. It will be found here and there that certain kinds of defects may cause more waste than others or make it more difficult to get clear stock in the dimensions required.

It is seldom that there are any really large dimensions required in furniture making. No ordinary piece of furniture ever calls for a piece of clear lumber as large as an ordinary clear board. It may be as wide but it will not be full length. Consequently, one may either buy clear short-length stock or buy rough lumber that has knots or other defects and by trimming these out get clear short lengths, or small dimensions and when this is properly done the resultant product is, as stated above, just as good as if it came from an entirely clear board.

The main point for discrimination aside from that of selecting the kind of timber wanted is to discriminate in selecting such lumber as will cut the greatest percentage of clear stock into the dimensions wanted, that is to give one the most good stock for the same amount of money. It doesn't matter whether that stock is No. 3 common oak, No. 2, No. 1 or log run, by getting sample lots, making a note of the cost per thousand feet in the rough, trimming it up and measuring the exact amount of good stock gotten out of it for furniture and comparing this with the cost per thousand one can soon arrive at a demonstration of which is the best to buy. Of course, there must be taken into consideration the cost of doing the trimming and reducing to dimensions.

Utilization of Material

In following out tests or experiments of this kind, if the work is carried far enough, it may be found that stock from certain mills of an even grade with stock of other mills will work better because of the grade of timber or nature of the defects, and it is out of this knowledge, knowledge gained through careful attention to experiments with different grades and kinds of lumber, that one gains knowledge for use in buying lumber with discrimination. This knowledge is becoming essential, too, to the conduct of furniture and other factories consuming lumber now, because the great burden of the mill man is that of low-grade stock and more of this must be utilized in such work. Otherwise the price of the clear stock will have to be raised beyond the reach of many purchasers in order for the mill man to make a profit out of their stumpage.

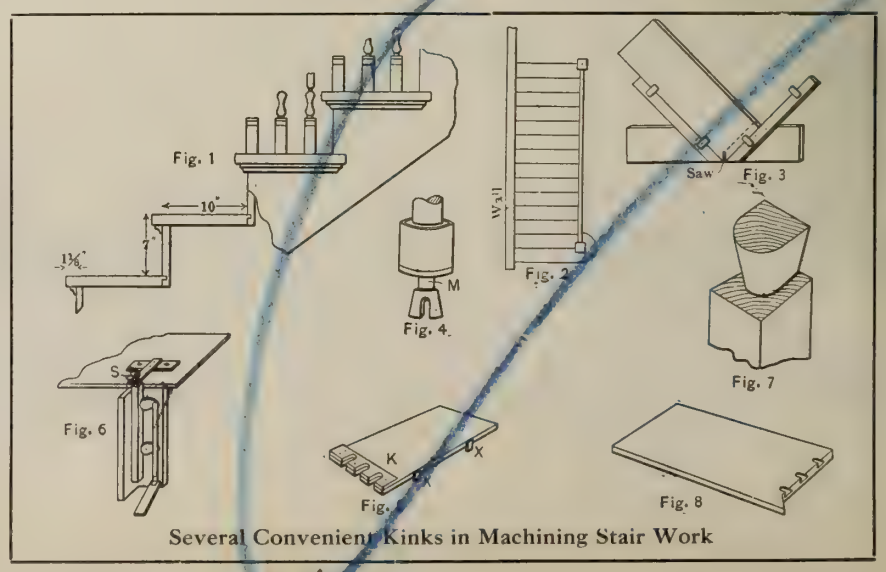
The great need is utility, devising ways and means to use every bit of our hardwood stumpage to the best advantage. We can do it by experimenting and carefully discriminating and selecting stock. They can do this and not only help the mill men but quite frequently the furniture manufacturer might be able to further his own interest at the same time.

The Planing-Mill Machining of Stair Work

By W. H. Bohr

There are textbooks on stair building and handrailing but they do not give details of machine work and many young machine men look to their trade journal for information along all lines of machine work.

I do not claim to introduce anything particularly new, but rather endeavor to give readers the benefit of my experience while employed in a big shop where I was called on to machine out work for the stair builder. Nor will I take space to cover all details—only offer a few that I think may be of the most interest and benefit.



Several Convenient Kinks in Machining Stair Work

Fig. 1 shows the plan of a portion of stairs using a cut and mitered outside stringer with treads having their ends mitered for return nosing. The lower part gives a detailed working drawing.

Fig. 2 is the ground plan. According to the ground plan there will be thirteen straight steps and one bull nose step; likewise fourteen straight risers and one bent riser.

Referring to Fig. 1 the pitch is seen to be 7 by 10 inches so that the net width of the riser according to this detail will be 7 inches. The back edge of the tread is rabbeted so that a 5/16 inch projection fits into the groove of the riser and the nose projects past the riser for 1⅛ inches. Therefore, the total width of the tread will be 11 7/16 inches. The tread finishes 1 1/16 inches thick; the riser ¾ or 13/16 inch and the cove is No. 8060, ¾ by ⅞ inch. Now these treads must be mitered for the return nosing, which will be the same width as the front projection, or 1⅛ inches. Referring to the ground plan, Fig. 2, it is seen that the right hand side going up is the end to be mitered for the return nosing. Then this end of all the treads should be trimmed square and one tread laid off and adjusted in the form, Fig. 3, for cutting the miter. This form can be clamped on a sliding table trim-saw or a universal saw with gage running in a groove. Anyway it must be on a trim-saw that can be adjusted for depth of cut.

After all are mitered they may be, by the use of a stop block or gage, trimmed up on the dotted line, see Fig. 3, as far as a circular saw will go without cutting past the miter, then finished with a hand-saw. Now they are ready for dovetailing.

Plan in Fig. 1 shows three balusters per tread, so lay off one accordingly. There are different methods of dovetailing treads, necessarily so on account of different machines. I used a regular stair router, having a bit like Fig. 4, above which was a double collar, the outer shell being loose, and thus prevented friction and wear when in contact with guides or forms.

Getting Dovetails Rightly Placed

To bring the dovetails in the right place I made a form like Fig. 5, the recesses of which coincided with the layout of balusters on the end of the tread. The recesses were just wide enough to admit the collar above the bit. They were 2 inches wide in this case, and cut back 2½ or 3 inches, then a little stop block was nailed underneath to gage the depth of the dovetail from the end of tread. Two little blocks XX were tacked on the side for the edge of the tread to come against.

This form, of course, fitted down over the tread and the two were held in place on the table by a large screw clamp, one end of which was fastened under the table and the screw tightened down on the form at about K, see Fig. 5.

Now if turned balusters were used the turner turned a dovetail on the lower end of each of them and the cut in the end of the tread was made to fit this; but if square balusters were chosen I cut on the dovetail with the same bit by holding the baluster in an upright position as in Fig. 6. This figure is practically self explanatory.

The apparatus holding the baluster in position is operated by the foot. The guide bolted to the top is made of iron ½ by 1¼ inches. The height of the baluster may be adjusted by the little set-screw S. Fig. 7 shows the end of a baluster dovetailed in this manner.

When balusters are dovetailed the shank of the bit marked M comes in contact with the iron form.

Fig. 8 shows a tread completely machined.—Wood Craft.

Proper Shape of Gullet for Band Saw Teeth

In the many articles I have read concerning the care of band-saws, occasional mention was made of the shape of the gullet for chambering the sawdust, etc.; but seldom or never has the shape of the teeth been considered as having much to do with causing cracks, writes R. Carleton, in Berlin Quality.

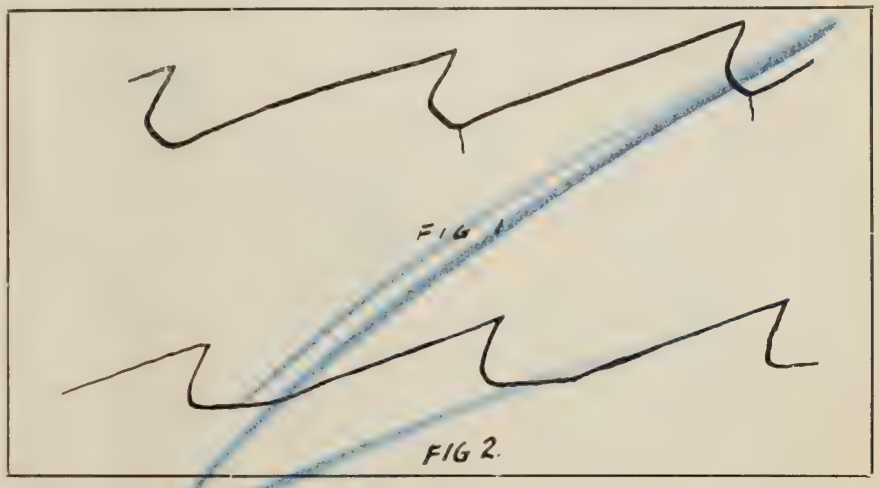
The purpose of this article is not to claim that any shape of tooth cannot be successfully used under certain conditions, providing that the tensioning and levelling is properly done, for we all know better; but under certain abnormal conditions where a saw would be almost certain to crack, one shape of tooth will bring a saw into the filing-room, nearly or quite useless, while another will nearly always save it for many more runs.

Now, here are same instances of abnormal conditions which have come to my attention: Two resaws with 54 in. wheels carrying a 6 in. blade, 19 guage, with the speed of the wheels varying from less than 400 r.p.m. to 580 r.p.m., (owing to lack of power in the engine-room) gave a tooth-speed varying from 5,600 ft. up to 8,000 ft. per minute. On one machine the face of the bottom wheel was flat while the top wheel was quite heavily crowned and worn off slightly in front. On the other, both wheels were slightly crowned, worn full of hollows and also worn off in front so that it was hard to find any two places which looked alike under the straight-edge. Of course, these things should be remedied, but it is not always possible to get this done. The stock which these machines were handling varied from pieces of white pine one inch thick to pieces of fir, spruce, hemlock, and some poplar. The width of cut was about thirty inches, so that it seems as though the conditions were certainly abnormal enough to cause lots of cracks.

I will illustrate one shape of gullet which was almost sure to come off from the wheels in such condition that the filer would tear his hair, the man who buys the saws would say things, while the man who sells them would smile sweetly, for business is good. Here is a sketch of the tooth. Note the location of the cracks; they will almost invariably be in the same place, so you will know where to look for them.

I will now give another sketch of a gullet where, under the same conditions, if you have any cracks at all, they will be very few and far between. I will also try to give you the reasons for this difference.

I think that all of my readers will agree with me that a band-saw would stand a great many times the strain to which it is subjected, providing it was not continually bent and straightened, and



that it is this bending action of the steel which causes the cracks. In the first cut you will note that the cracks nearly always occur at the very bottom of the gullet where the blade is narrowest, and therefore will bend the easiest. This concentrates the bending strain at one particular spot, and of course, will crack the blade right there and in no other place. Does this not sound very reasonable?

You will note that in the second cut, the bottom of the gullet is flat and is carried flat as far as possible but still leaving enough steel to build up a fairly strong back on the tooth. My reason for this is, of course, that the bending strain of the steel will not be localized, but will be distributed over the length of the flat part of the gullet, so that the bending circle will be that much less abrupt and therefore, just that much less liable to crack.

What is sauce for the goose is also sauce for the gander, and if under the conditions mentioned the flat gullet will not crack, why is it not a good shape to use when your machines are in good condition and you have no solid 30 in. hemlock to saw and everything else is right accordingly?

Some Troubles of the Molding Room

By M. C. Cantrell

Though much has been said through these columns about molding room work, and the best way to do certain things gone over at length, I have seen no story from the "trouble" man in this line. Unless the stickerman himself has contended with the conditions under which different shops are managed, he will probably be surprised at the innumerable things that arise.

Some mills furnish all stock to the molders sized in both width and thickness. This reduces trouble to a minimum. It often avoids the necessity of setting or running the bottom head, belts will do the work and run very slack; knives stay sharp much longer, and bearings remain snug, run cool and last much longer. No unusual strain is placed on the feed rolls and gear, and cross-grained stock does not tear badly. As to the advisability of sizing stock to such an extent, it depends largely on the kind of wood being used, the class and quantity of work. In working hardwoods, close and accurate sizing is an absolute necessity. The cutters will not remove unusual amounts of stock, and, if they would, a much greater per cent. of stock would be spoiled, and stock is more valuable than time.

In the strictly detail, or local shop, surfacing and sizing are necessary for best results, regardless of the kind of wood being machined. Here is where trouble is more or less a stranger, because each machine is operated by a regular stickerman, who, as a rule, heads off trouble before it gets there. The runs are short, allowing little time for bearings to heat; stock is kept cleared away without trouble, and little or no worthless stuff gets into the business.

But go into a large sawmill of, say, a capacity of 350,000 to

400,000 ft. in ten hours. Note the stuff as it is sorted and distributed, follow it down to the dry-kilns, and wonder, down in your heart, "what in thunder" they are going to do with certain cars of seemingly worthless stuff. At the opposite end of the battery of kilns you will find a big planing mill. As these cars of junk come out, they go on a transfer and pass down the line. You go into the planing mill and see some one loading edgings of all shapes and sizes on a horse truck. Some one else is loading all the stuff that is so crooked that it will not go through a matcher. "Bullheads" and thin stuff go on another truck, and they all go in the direction of the kiln car.

From the planing mill you go into the cutting room of a big sash and door factory, and see a busy gang planing, ripping, cutting and resawing, sorting and resorting. A few more trucks are being loaded with what is left after the factory gets all it can use out of it. Follow those trucks a short distance, and they, the kiln cars and the planing mill "leavings" join " company." Go around the aggregation (for as a rule you cannot go through), and you will find the molding mill.

Here one may witness the process of making moldings, trouble, and—gray hair. Five, six, eight or ten machines will be grinding out stuff, in quantity from a dozen to 50,000 feet of a kind, in size from ¼ x ¼ in. glass bead to 6 x 6 quarter-round or gutter or 3 x 14 crown. All this does not come from odds and ends, mind you; it is necessary to have a large part of the stock from the mill's best product. But to the edgings from every other place are added those of the molding room rip saws. Everything from ⅜ x 1 in. up, and 6 ft. in length and over, is saved; and often as short as 16 inches. Stock 6 ft. and up goes into orders. When running O. G. and parting stop, drip cap, blind stop, and some patterns of beads and crowns, brick molds, back bands, etc., we save them down to 2 ft. for the frame department. Squares from 1½ in. up, and 16 in. in length and over, go to the turning department. As large quantities of moldings are used on doors, we throw nothing out, when running them, that will cut a clear piece one foot long.

But that trouble. Here the machines have feeders, and not stickermen, and all the rest is up to the foreman and his helper (if he has one). The market of a concern of this kind begins in its "door yard" and extends to the outermost corners. Orders come in made up from every molding catalog known to man since Adam. To these are added numerous mongrel details from the befuddled brains of would-be architects. Then some yard man tries his hand and sends in a free-hand sketch that would digsrace the birch-bark production of a Mohican pappoose. All these are neatly pinned to the order and go to the foreman for his interpretation; and knives are to make accordingly.

These cutters are kept for several months and then changed to another detail, thinking they will be needed no more, and the next day the old customer comes back for 200 feet more, thoughtfully mailing a sample cut from the end, with part of it "minus." Yet we have a genuine good feeling toward that fellow, for he was trying to be kind to us. But from the architect or contractor who will send in a bunch of cross-eyed details for the "Jones" job, and in about eighteen months send another order, and without even specifying sizes, say, "same pattern as 'Jones' job," may the good Lord deliver us.

While we are out in the grinding room trying to decide which is the "face" of some of those "mishaps," making cutters and eating emery dust, the rip saw gets a bunch of tickets and attacks the aforementioned stock. As there are so many widths and thicknesses of this stuff, it is entirely impracticable to size both ways, or either way when it can be avoided. So, when getting out stuff to finish 13/16 x 1¼, it is very common for strips to go to the machine 2 in., even 2¼ in., at one end, and 1½ in. thick part of the length. Now, that makes trouble. We must use sizers—straight knives that cut through to the bed, cutting away all but about ⅛ in. for the side head to remove. This gives the top head an overload, which means that belts must be stretched to a maximum, and hot boxes are in order—unless everything else is in order. That particular thing, however, is the smallest of our troubles.

The feeder will start a "bullhead" in thin end first, without knowing, possibly not caring, just how thick the back end is, and the piece either sticks in the feed rolls or chokes the top head down, and the foreman or helper must go and get things straight. By this time another fellow has the pressurebar "scratching," and, if left alone, it is dollars to doughnuts that he will get it too tight or too loose. This done, some one else has a piece "jammed," and is either riding the weight lever or using a piece of 8/4 stock trying to drive it through. We get there and find any one of half a dozen causes. And, strange as it may seem that any feeder would be so stupid, a head will be choked and the belt literally be burning up around the pulley. Yet he has not the least idea why the old thing won't go. Maybe a sliver has come loose and wedged on the under side; or, if the stock is quite damp or green, a bunch of fiber has accumulated in the crotch of the bed and rail. The same thing may have happened on the back side of the bottom feed roll.

By this time "Bill" has put the big end of a "bullhead" in first and it hung up against the chipbreaker. When he finds out the trouble he holds the chipbreaker up for half the length of the piece, making beautiful cross-scallops. The back end is so thin it won't feed, and he doesn't know enough to put a thin piece—sliver, anything—on it, under the feed roll, and let her go. Now Dick comes over with a broken side head belt; you get it repaired, he puts it on, and when he starts up you know from the sound that he is running the head backwards.

You smell a hot bearing by this time, locate it, and the feeder will swear that he oiled it only two minutes before. If he did, it was on the outside. And right here I want to say that more machines go to the "deminition bowwows" through improper oiling than any other one thing. If one-half the oil that goes into the can went through the bearing properly, there would be less trouble.

However, you straighten up, look toward Dick again, and see him trying to ram a strip through his machine by hand. It was cross-grained and had split and jammed under the pressure-bar. You get him going, get back in the grinding room, and begin laying out work for another day. Just then Harry rushes in and wants a tomato can full of rosin. He has started on a run of 4 x 6 gutter, and the belts won't carry the load. Pete has a loose bearing, and Jack's cutters are dull. By the time these little things are over with, three or four machines finish the run and are ready for a change, within two minutes of the same time.

As the foreman and helper can do only two men's work at a time, the feeders take advantage of the occasion and take a hike for the hydrant and other places. And right then you may bet your old clothes that the "Old Man" will stroll in and want to know if you are running that day. Before you can get the string going again a cutter on one of the remaining active machines develops a nick and is "down and out" until you can get to it.

At last all machines are going, some of them on items requiring several thousand feet of stock, and before the run is finished stock runs "shy." Then it's wait or change the set, either of which is unprofitable and looks bad in the daily report. Occasionally you get the entire string going on a full day's run, and by the time you have patted your own back, a rush order is brought in that must be shipped at 2.50 p.m. While making the best of a bad occasion, a cross-grained "heel" comes off under the top head of No. 6, and the next few pieces are fed up the blower pipe.

At this moment the devil breaks loose up in the fan housings, and the whole shop must be shut down long enough to unravel a pair of cast-off overalls from the fan. The crew is lined up, and every mother's son of them will swear that he never owned such a pair in his life. This last is not a common occurrence, but it does happen occasionally. Fire the feeders, you say? What's the use? The next ones will be as bad, or worse. And should you be so fortunate as to get one with enough "gray matter" to avoid these troubles, he will want as much salary as you are getting, or he will leave you. And down in our heart we don't blame him.
—The Wood-Worker.

Drying and Handling Factory Lumber

By Chas. D. Gifford

Inasmuch as you can't make a silk purse out of a sow's ear, it is impossible to make a first-class piece of furniture or other wood produce out of imperfect material. No matter how good your machines are, no matter how skillful your cabinetmakers, nor how well the finishing is applied, you must have the material to begin with in order to get thoroughly satisfactory results.

The cost of labor and machining is, of course, the greater part of the selling price of any article, material, the basis of these operations being a minor factor as far as cost is concerned. This only emphasizes the importance of having your lumber in good condition for working, for the spoiling of the material is less important than the waste of labor and time involved in putting it through the manufacturing processes.

A whole lot of knowledge has been added to the sum total on the subject of drying lumber within the past few years, though it is safe to say that there is still a good deal to be learned. The seasoning of lumber after it has been received by the consumer and the final process of kiln-drying which precedes its movement to the saws are so important that the treatment of the material should be carefully regulated by the manufacturer, and not left to chance or to a rule-of-thumb system which does not take into consideration the varying problems presented by different kinds of lumber.

The air-seasoning of stock is so valuable a consideration that it is almost folly to rush a car of lumber into the kiln without giving it a chance to dry out in the air. Sun, wind and the other natural elements do more to season lumber thoroughly than anything else can

do, and the time that the lumber is piled in the yard is by no means lost.

When lumbermen sell material to consumers they may guarantee it to be "bone-dry," but taking into account human fallibility, it is always well not to assume that the stock is ready for use, but to give it several months seasoning in the yard before attempting to make use of it.

The tendency on the part of many consumers has been not to carry large stocks of lumber, but to buy in smaller lots. One effect of this has been that a shorter time has been allowed for the lumber to dry out after it has been received. This is unfortunate, but makes the necessity of careful treatment before the material is cut to dimensions, and preparations made to put it into the work where it is to remain permanently, all the more apparent.

While, as an average, it would be better to dry lumber from six to twelve months before using it, this is often not possible. Therefore, the time that it is allowed to remain in the open should be taken advantage of to the fullest extent. Piles should be not more than six feet wide at the most, so that the air will have a chance to get at each board. The individual pieces should not be placed too close together, and the layers should be separated by strips.

These strips should be laid close enough together to prevent the boards from sagging. For instance, it was noticed recently that a large consumer of lumber had 12-ft. boards piled with only three strips in use, sections 6 ft. long therefore being unsupported. This was causing the stock to sag and giving promise of trouble in the future. It was found advisable to take the pile down and put the stock up with four strips instead of three, so that the sections which carried the weight above would consist of only 4 ft. instead of 6 ft. A marked benefit followed this change.

Piles should not be placed too close together. Several feet should intervene between them, for not only does this aid in hastening the seasoning process, but is advisable from other standpoints, such as that of fire prevention.

The universal use of dry-kilns is ample testimony of the efficacy of this form of drying, and undoubtedly by using a good kiln a woodworker is enabled to do business with much smaller stocks than would have been the case under the old conditions, where air-drying alone was in vogue. Quick drying makes it possible to carry smaller stocks and thus to have a smaller working capital than was formerly necessary. This is an important consideration, and one that the dry-kiln manufacturers have reason to emphasize.

A half-way point between the dry-kiln and the yard is recommended by some lumber users, however, this being an inclosed shed which is kept at an even temperature of about 70-deg. Even where no attempt is made to heat the shed artificially, benefit results from the protection from moisture, though this is discounted, in the opinion of others, by reason of the fact that the sun is shut off and less air can circulate than in the case of lumber stacked in the yard. But if lumber can be gradually dried out at relatively low temperature, it is probably fair to assume that better results will be obtained than if the drying process is too rapid.

As a matter of fact, the competition between advocates of various dry-kilns is probably responsible for much of the over-quick drying which is occasionally in evidence. Each kiln man promises that his proposition will enable the lumber to be prepared for use in shorter time than any other type of kiln, and in order to have this result accomplished the tendency is to recommend the use of excessive heat.

It goes without saying that an extremely high temperature in a perfectly dry atmosphere would kill the life out of the best lumber in the world. If the kiln is kept heated to a temperature of 160 deg., say, the point at which some users of wood maintain their kilns, and the lumber is not pretty thoroughly seasoned when it goes in, the the result will certainly be case-hardening, imperfect, drying and probably checking.

In order to anticipate such a result, there are a good many consumers of lumber who make a point of supplying moisture to the kiln by condensing steam from the pipes and allowing it to fill the chamber. By a system of drafts the air is kept circulating and the humidity does not become too great. The pores of the lumber are kept open, so to speak, and case-hardening is obviated. The drying process is probably slower this way than otherwise, but this is a time when haste makes waste.

Some users of lumber do not favor the use of a temperature around 160 under any circumstances. They assert that they prefer to take a longer time and have better lumber. They maintain their kilns at about 120 deg., and by a comparatively slow and gradual process dry their lumber without the danger of creating too rapid a change in the condition of the stock, such as would be likely to result in its becoming too hard and brittle.

Following the drying process, it has been found an excellent plan to allow the stock to "anneal" for several days before use. Driving the moisture out of lumber causes it to contract, naturally, and it is well to give the lumber time to allow its pores, emptied of their moisture, to gradually expand before cutting it or attempting to work it. The period that the annealing process is permitted to continue varies with the thickness of the material and with the heat to which it has been exposed. If 1-in. stock has been heated to a temperature of about 140 deg., say, four or five days should be given it in which to recover its normal condition.

All lumber contains some moisture, and if stock which has just come from the kiln is worked and put into a piece of furniture or a veneered product, the tendency is for it to absorb moisture at the first opportunity. Drawers which "stock" and which cause the "ultimate consumer" to vow never to purchase furniture from So-and-so, or under a certain manufacturer's trade mark, are usually traceable to the use of lumber which has been quickly dried and then cut to size and worked up into the article for which it is destined, without being given a chance to expand. The importance to the user of the commodity in which the material is placed of having only thoroughly seasoned and properly dried lumber worked up, is plain, and the manufacturer owes it to himself as well as his trade to get rid of even the possibility of dissatisfaction on this score.

A prominent consumer of lumber said recently in conservation with the writer:

"The tendency on the part of a good many of us, and I do not except myself altogether, is to use too much heat in drying our material. We are too eager to get the use of the lumber, and don't give it a chance to show its best qualities. I suppose the average buyer and user of lumber blames the lumberman because the stock comes to him green, and promises himself never to buy from him again, if in kiln-drying it, it happens to become case-hardened.

"Instead of taking this view of it, it would be far better to assume that the stock is not thoroughly seasoned, and to give it a chance to dry in the open air, where the sunshine and wind can do their work, protecting it only by a roof which will permit the sides and ends of the lumber to be exposed. A little wrinkle here, by the way, is to pile the lumber with the longest boards at the top, so that the rain will not drip off onto the lower ones. When the stock is put into the kiln, use too little rather than too much heat, even if it does take more time. Gradual drying certainly beats too rapid driving out of the moisture.

"When we are paying $75 for quartered-oak lumber, there is no sense in turning it into cheap stock because we are too impatient and need the lumber. It would be better to carry somewhat larger stocks rather than attempt to rush through the kiln the smaller quantity, in an effort to make use of the lumber as soon as it reaches the yard."

In order that exact facts may be secured as to the lumber, it is well to mark every pile that is stacked with the date it was put up and the quantity of lumber it contains. In this way it will be easy to determine about when it is safe to use the material, and as to the approximate treatment it should be given in the dry-kiln. The stock that is thoroughly seasoned can take a higher temperature than that which is still green, and, on the other hand, the amount of moisture which is kept in the kiln can also be better determined when the age of the stock is arrived at.

In buying lumber it is usually impossible to get the seller to state the age of the stock. Every lumberman thinks the seller would willingly part with the information, which would be worth considerable to the user, for he would then be prepared to determine the period that the lumber should remain in the yard and the proper method of handling it in the kiln.

Speaking of drying lumber, it is well to have stacks piled in the yard, with plenty of room underneath. Too many users of lumber put their stock almost on the ground, and under these conditions it is almost impossible to dry the boards on the bottom. It is best, if possible, to place the stacks on concrete foundations, and if these are not practicable, substantial foundations of wood which will lift the pile sufficiently high above the ground to enable plenty of air to circulate and prevent the earth damps from permeating the lower sections of the pile.—The Wood-Worker.

The Winnipeg Branch of the H. W. Johns-Manville Company, owing to their fast increasing business in asbestos, magnesia and electrical supplies, has found it necessary to move into new quarters at No. 92 Arthur street, Winnipeg. This is a six-storey and basement building, 100 feet deep and 50 feet wide, and will be occupied throughout by the company's offices and store-rooms. By reason of this move, a much larger and more complete stock of goods will be carried on hand than heretofore, and a larger force will be employed to look after the company's interests.

A big forest fire did considerable damage to the property of the Columbia River Lumber Company, at Golden, and threatened that town with destruction. Camp 14 of the company was burned, with 50,000 feet of logs, but fortunately not much damage was done to the standing timber.

WANTED & FOR SALE DEPARTMENT

PUBLISHERS' NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

WANTED—LUMBER, ETC.

Wanted

For delivery beginning in three weeks, finishing in six months, 300,000 feet 3-in. sound square edge beech,. f.o.b. Montreal. Reply "G" Builders Exchange, Montreal. 12-13

White and Red Pine Wanted

3 in. x 6-in-7-in. 18 ft. Tank Stock, also Quarter Cut White Pine Pump Squares.

Ontario Wind Engine & Pump Co., Ltd.
Toronto, Ont. t.f.

Basswood Lumber

We will purchase Basswood Lumber, 1-in. and 1¼-in. thick, white stock by car or entire stock. White us what you have and what you want for it.

Box 498, Canada Lumberman, Toronto, Ont. 11-15

Basswood Lumber Wanted

We will purchase Basswood Lumber, 1 in., 1¼ in., 1½ in., 2 in. thick. Write us what you have and what you want for it.

CANADA LUMBER SALES CO.,
N. B. 416,
Dominion Express Bldg., Montreal.

Trimmer Ends Wanted

Price and freight rate permitting we will contract to take your White Pine Trimmer Ends, rotten pieces thrown out, fresh stock and not colored. Write price per cord on car and state shipping point.

The Wm. Cane & Sons Company, Ltd.,
11-17 Newmarket, Ont.

FOR SALE—LUMBER, ETC.

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

For Sale

To the manufacturers: Birch, Maple, Basswood and Elm in all thicknesses. Send us your enquiry. The Meaford Lumber Company, Meaford, Ont. 7-20

For Sale

100 M. ft. 2-in. Cull Spruce. 300 M. ft. 1-in. Cull Spruce. 15 M. ft. 1¼-in. M. C. White Pine. 50 M. ft. 2-in. M. C. White Pine. Fred T. Smith, 310 Board of Trade Bldg., Montreal, Que. 1.t.f.

Lumber For Sale

4 cars 1-in. good cedar for boat building.
100,000 ft. 2 x 6 mill run hemlock.
100,000 ft. 2 x 8 mill run hemlock.
4 cars 2-in. white oak, sound and square edge. Apply to Geo. C. Goodfellow.
c Montreal, Que.

Long Piling For Sale

200 to 300 red pine piles for sale, 50 feet long and up to 70 feet. Immediate shipment.

J. SHEPPARD & SON,
10-13 Sorel, Que.

WANTED—MACHINERY, ETC.

WANTED—Good second hand Wickes gang, 18-in. cut; must be of modern construction and in good operating condition. Advise with full particulars. Graves, Bigwood & Co., Buffalo, N.Y. 13 T.F.

FOR SALE—MACHINERY, ETC.

Belting For Sale

1,000,000 ft., all makes and sizes. Pulleys, Shafting, Saws, Iron Pipe, Roofing, Steel Cables, 200 tons Relaying rails, etc. Write us for prices, stating requirements.

Imperial Waste Metal Company,
11-14 150 Queen Street, Montreal.

Machinery For Sale

A Waterous No. 4 Band Saw Mill, with Carriage Saws, Live Rolls, and complete Filing Room equipment, also several Good Woodworking Machines, in splendid condition.

J. S. FINDLAY,
2-TF Owen Sound, Ont.

Saw Mill For Sale

On Georgian Bay, adjacent to North Shore, good two-storey circular mill in good running condition, double edger, trimmers, capacity about 12,000 feet per day; plenty timber available and ready sale for slabs; splendid opportunity for small millman; will be sold cheap as owners have other interests requiring their attention. Box 444, Canada Lumberman, Toronto, Ont. 5-TF

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 70 H. P. boiler, 60 H.P. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

Whitney Saw Mill For Sale

We offer the Whitney mill at $25,000 as it stands. This mill is equipped with good heavy machinery and is in good repair. Cost when new $170,000.00. Has three single cutting nine foot band mills and one nine foot band re-saw. Three edgers, trimmers, lath and picket mill, shafting, pulleys, belting, etc. 750 horse-power Engine with battery of eight boilers, 6 ft. x 20 ft. Machine shop, refuse burner, sprinklers, lighting plant, etc.

THE MUNN LUMBER CO.,
7-tf Orillia, Ont.

Machinery For Sale

Carver, four spindle, Rohlman.
Cut-off saw, railway.
Dovetailer, Boults.
Engines and boilers.
Jointer, chair seat, Jenkins.
Jointer, 16-in. Clement.
Moulder, two side, 6-in. Smith.
Moulder, three side, 6-in. Smith.
Moulder, four side, 6-in. Houston.
Moulder, four side, 9-in. Fay.
Moulder, inside, four side, 12-in. Woods.
Mortiser, Smith.
Mortiser, Bit.
Planer, 20-in. Gem.
Planer, 24-in. Cincinnati.
Planer and Matcher, 9 by 6-in. Berlin.
Resaw, band, American, 48-in. wheel.
Resaw, circular, 42-in.
Resaw, Goodell & Waters, 36-in.
Ripsaw, circular, self feed, Williamsport.
Sander, 24-in. Perry, power, two drum.
Saw Gummer, Rogers.
Saw-mill, band, 63-in. wheel, carriage 18 ft.
Shaper, home made, wood frame, 2 spindle.
Shaper, iron frame, wood table, 2 spindle, light.
Shaper, iron frame, wood table, 2 spindle, heavy.
Swing saws.

O. L. PACKARD MACHINERY CO.
c Milwaukee, Wis.

Machinery For Sale

One 10-in. moulder on base Hespeler Machinery Co.; one 26-in. divided roll Ballantine Planer; one power feed rip saw Ballantine; one 16-in. buzz planer with Jones guard; one 30-in. bracket band saw; one shaper; one roll top cut-off saw; one wood frame cut-off saw and groover with two patented groover heads; one wood frame rip saw with boring attachment; one mortiser; one tennoner; one sash and door sticker with five heads; one door clamp; one 16-in. swing lathe; one sand drum; one 30-in. x 30-in. x 36-in. safe; one 35 h.p. engine and boiler; one emery with three wheels; one swing saw; a large quantity of sprocket wheels and chains; one automatic saw gummer; twelve roller bearing factory trucks; one rope feed saw mill; large number of wood split pulleys; quantity of used belting; quantity of shafting hangers, boxings, etc. Will sell any of the above cheap for quick sale.

Write to Box 576, Canada Lumberman, Toronto, Ont. 12-tf

WANTED—EMPLOYMENT

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

Young man, 30 years, requires position in lumber trade, 12 years' practical experience as manager, salesman, full knowledge of all trade calculations and office routine, etc. W. L., 119 Board of Trade, Montreal. 13

WANTED—Position as Bookkeeper and office manager with wholesale lumber firm. Ten years' experience; competent to handle all of a lumber office work. Best of references furnished. Apply Box 521, Canada Lumberman and Woodworker, Toronto, Ont. 13-16

Timber Estimating

Roads and limits surveyed, water powers examined. Any kind of Forest Engineering. Many years experience. Know the West well. Good references. Charges moderate.

E. B. NAGLE,
191 Augusta St.,
10-13 Ottawa, Ont.

Position Wanted
in Western Canada

Position as superintendent or general superintendent in Western Canada by an up-to-date progressive lumberman who has the ability to organize and build up his organization and get results. One who has been through the big White Pine Mills in Wisconsin but is now in the South. No question as to ability and determination to make a success. Reply Box 495, Canada Lumberman, Toronto, Ont. 10-13

WANTED—EMPLOYEES

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—Good planer hand, also man for large Band Saw. Apply M. Brennen & Sons, Hamilton, Ont. 13

WANTED—A good man to saw out about 1,000,000 feet of Hardwood Logs this coming fall and winter. Apply Box 519, Canada Lumberman, Toronto, Ont. 13

Wanted quick engineer to operate log jack and loading hoist. Steady work for good man. Holt Timber Company, Whitestone Post Office, Ont. 12-13

Wanted a man, competent and reliable, to oversee the manufacture and grading of lumber. Saw mill at Toronto. Holt Timber Company, Whitestone Post Office, Ont. 12-13

Wanted

Thoroughly competent saw filer for mahogany and hardwood mill, experienced man for slicing and rotary veneer machines.

Circular sawer for edger.

Apply 119 Board of Trade Bldg., Montreal, Que.

WANTED—Yard foreman for retail lumber yard furnishing contractors, in South Western Ontario. Must be active man, not afraid of work. Wages to start $2.50 per day, with a possible raise to $18 per week. State age and experience. Box 520, Canada Lumberman, Toronto, Ont. 13

Buyer Wanted

Wanted—Hardwood Buyer and Shipper for Ontario. Must have a knowledge of grades and values and a knowledge of road work. We want a good live practical man who will guarantee to make good. No boozer need apply. Will pay large salary to right man. State age and experience. Must have highest references. Strictly confidential. Reply Box 487, Canada Lumberman, Toronto, Ont. 9tf

Reporter

We want an energetic representative in each town in Canada to report on building and engineering work—to tell us where machinery, equipment, supplies or materials may be sold. Reports are paid for on the per item basis. It depends upon your own efforts how much you make. This is a profitable side line and there is good money in it for a hustler. Write to MacLean Daily Reports Limited, 220 King Street West, Toronto.

BUSINESS OPPORTUNITIES

For Sale

Planing mill, well equipped with modern machinery, doing good business. Ill health only reason for selling. Reply J. S. Richardson, Tillbury, Ont. 12-15

Timber Limit For Sale

1,200 acres Hardwood, Hemlock and Cedar. Some Pine; 9 million feet for $5,000 cash. Five miles from railroad; two from river. Box 431, Canada Lumberman, Toronto, Ont. 6-t.f.

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest, if your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf.

For Sale

The best equipped planing mill in Northern Ontario in fast growing town. Also lumber yard in connection. Splendid opportunity for live man with some capital. Owner retiring from business. Apply Box 522, Canada Lumberman, Toronto, Ont.

For Sale

Established Lumber Business, with first-class mill, now running full time. Timber limits with 20 to 30 million feet of standing pine timber conveniently located, and all merchandise, etc. Price $55,000. This is worthy of investigation. Address Box 332, Canada Lumberman, Toronto, Ont. 19-22-t.f.

Timber Limits For Sale

Two sections, 1,280 acres timber, about fifty miles from Nelson, B. C., one mile from railway; about 12,000,000 feet saw timber, 5,000 to 6,000 poles, and considerable tie timber. Road from railway to limits. Must be sold immediately. Offered at great sacrifice. Apply J. R. McDougall, Trail, B. C. 13

WANTED—Owner of good Portable Mill or Two, to take an interest with us in 4,000 acres spruce and birch timber tract in Quebec. Fine mill sites on two streams, level road to station—three miles—good and ready sale of lumber. We own the timber but want experienced man to take contracts from tree to train.

LAYCOCK LUMBER CO.,
13 Ellicott Square, Buffalo, N.Y.

Canadian Timber Limits

E. STEWART (Forest Engineer)

Dealer in Timber Limits, Ontario and Western farm lands and town property. Excellent investments now open. Correspondence invited. 84 King Street East, Toronto. Phone Main 5609. C

Tenders for Pulpwood Limit

Tenders will be received by the undersigned up to and including the 15th day of August next, for the right to cut pulpwood on a certain area, situated on the Abitibi Lakes and River, tributary to the Grand Trunk Pacific Railway, and the Temiskaming and Northern Ontario Railway, in the District of Temiskaming.

Tenderers shall state the amount they are prepared to pay as a bonus in addition to dues of 40 cents per cord for spruce, and 20 cents per cord for other pulpwoods, or such other rates as may be from time to time be fixed by the Lieutenant-Governor in Council, for the right to operate a pulp mill and a paper mill on or near the area referred to.

Such tenderers shall be required to erect a mill or mills on or near the territory and to manufacture the wood into pulp and paper in the Province of Ontario—the paper mill to be erected when directed by the Minister of Lands, Forests and Mines.

Parties making tender will be required to deposit with their tender a marked cheque payable to the Honorable the Treasurer of the Province of Ontario for ten per cent. of the amount of their tender, to be forfeited in the event of their not entering into agreement to carry out conditions, etc.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

W. H. HEARST,
Minister of Lands, Forests and Mines.
Toronto, Ont., May 15th, 1912. 11-15

Mahogany and "Mahogany"

Circular 185 of the United States Forest Service, states that there is a consumption of 40,000,000 ft. a year passing on the market as mahogany, whilst the annual cut of genuine mahogany is only 18,000,000. The question, then, is what are the other 22,000,000 feet made up of? The same report states that "Colombian mahogany is not even a member of the mahongany family. There is, however, a resemblance in the color and grain which has made the substitution possible." The report further states:—

"The physical properties of the wood are analogous to those of the true mahogany. It does not exhibit true annual rings of growth, which is a characteristic of the true mahogany.

"When properly seasoned it does not warp, check or shrink, and a great deal of the lumber has a beautiful figure and is susceptible of a high polish. It is hard and heavy, is strong and tough, and in color and weight compares almost exactly with genuine mahogany. The main objection to the lumber comes from those who actually work it. They complain that it dulls saws and other tools quickly. A microscopic examination showed that this is the result of an abundance of crystals of calcium oxalate and calcium carbonate."

Apart from the question of nomenclature, the report shows a strong sidelight on the wood when compared with the generally recognized true mahogany. Notice the main objection of the workers—what can be more forcible? Whilst the workers may not be able to give utterance in scientific terms, they possess an intuitive knowledge which frequently hits the point, and when wood dulls the saws, etc., it at once becomes more costly to work, and thus its inherent qualities discount its value. The report says that when properly seasoned it will not warp and shrink; but here, again, this class of so-called mahogany is at a disadvantage, as it is more difficult to season, owing to excessive moisture, and apt to check in the process than the actual mahogany. Apart from the foregoing drawbacks, there is also the question of the variability of color, texture and density of much of the wood shipped as Colombian that one is inclined to think all of it is not of one genera. To give the wood a reasonable trial more care should be exercised in its selection; as it is at present shipped it is only an abuse of nomenclature. This applies to many other sources of supply, and there is too much shipping some other wood and calling it mahogany, but in the long run it only recoils upon the shippers when woods come forward under an alias. Whilst buyers are willing to try unknown shipments to see how far the wood possesses the essential characteristics of mahogany, they will not pay true mahogany prices in future when they have once tested such shipments if they find them lacking in the primary essentials. One of the greatest charms of Honduras mahogany is its general uniformity of color and texture, and if any wood is to compete with it, it must in some measure possess some uniformity, hence the need of more care in shipping wood under the name of mahogany. It is extremely unsatisfactory to buy a dozen logs of so-called mahogany to find there are three or four distinct botanical varieties. Notwithstanding the many sticklers as to what is genuine mahogany, we venture to doubt if any practical agreement could be arrived at by any convention of experts. In these days of high prices it is the shipper's own fault if the consignment does not pay. Any wood, to make a market, must be carefully selected for what it is, or professes to be, and if this primary condition is observed the wood will find a place in commerce, especially considering the high prices current for the recognized varieties of mahogany. We believe that whilst the wood shipped as "Sapeli mahogany" is not really a mahogany in any sense, yet by its general uniformity of color, texture, and manufacture, it has attained a most enviable position, and finds a distinctive place in commerce. There are many other woods from the tropical forest which, with more care in selection and manufacture would also become standard woods.—Timber Trades Journal.

Uses for Sawdust

Many uses have been proposed for sawdust but one of the purposes to which considerable sawdust of the United States is devoted is the manufacture of oxalic acid. A number of patent processes for the production of this acid from sawdust or similar by-products now exist. Several of these plants have been started in various parts of the country.

The sawdust is treated with strong soda or potash lyes and exposed to the action of air at certain temperatures. The wood fiber is destroyed and certain reactions take place between the lignene and the lyes, which result in the formation of oxalic acid. The final product is leached with water and the oxalic acid crystallized out.

The entire supply of commercial oxalic acid has in the past been imported into the United States but in order to encourage the establishing of factories for its production the last Congress placed a duty of two cents per pound on the imported article.

Aerial Ropeways for Timber Haulage

Aerial cableways have been used for many purposes and with varying success in different parts of the world, but probably unique in its way is the installation for timber transport at the New Hornow mills, in the Usambara Mountains of German East Africa, and its success during the last eighteen months is likely to encourage the provision of similar devices in other colonial timber regions where transport difficulties exist. The distance covered by the installation mentioned is upwards of five miles, that is, from the sawmills on the edge of the forest, situated at an altitude of 5,220 feet, and the nearest railway station, between 70 and 80 feet above the sea level. A log road or other surface line was out of the question in such a descent, especially as the rock is of a treacherous character. How steep the cableway is in parts may be gathered from the fact that between the two angle stations the gradient is actually 41 degrees, which has been rarely exceeded anywhere in the world. Along this cable rough or sawn logs up to 46 feet in length, and weighing one ton, make their way down the mountain side to the railway station, and rails and other loads are hauled up to the sawmills.

The construction of the cableway was an engineering feat of no ordinary kind, and necessitated the erection not only of two angle stations mentioned but also of two tension towers, and it is to be noticed that some of the supporting towers are of considerable height, one actually being as high as 100 feet. Steel had to be used throughout owing to the danger of wood-destroying ants, but it is interesting in view of similar installations which may be put up that the whole work was carried out by unskilled native labor under the direction of the European engineers.

Whitewash for Sawmills

The Lumbermen's Underwriting Alliance of Kansas City, U.S.A., reiterates the recommendation that a thorough cleaning of all woodwork of sawmills and factories, and then the application of a generous coat of whitewash spells very much for decreased fire risk. The Alliance suggests the following approved recipe for the making of whitewash: Slack one-half bushel of lime with boiling water, keeping it covered during the process. Strain it, and add a peck of salt dissolved in warm water; 3 lbs. ground rice, put in boiling water and boiled to a thin paste; ½ lb. powdered Spanish whiting, and 1 lb. of clear glue dissolved in warm water. Mix these well together and let the mixture stand for several days. Keep the wash thus prepared in a kettle or portable furnace, and, when used, put it on as hot as possible, with a painter's whitewash brush.

Measure Your Lumber With the Barkey Lumber Register

The most accurate measure on the market.
Can be instantly adjusted.
Capacity 60,000 feet.
Measures any width and length.
Can be used on any moulding or matching machine.
Will work backward as well as forward, and will not slip on smooth or icy boards.

SENT ON 30 DAYS' TRIAL. RETURN AT OUR EXPENSE IF NOT SATISFACTORY.

BARKEY BROS.
Sole Manufacturers
STOUFFVILLE - ONTARIO

Review of Current Trade Conditions

Ontario

The inability of the railroad companies to supply cars for the transportation of British Columbia shingles owing to the large amount of grain being moved in the west is causing several Ontario firms no little inconvenience. Several of the firms are behind in their orders and state that they cannot rely on deliveries. No advance in prices has been announced in British Columbia shingles during the last two weeks.

Trade in Ontario continues to be very good with prices about normal, although the scarcity of dry hemlock is causing some annoyance. Dry lath are also hard to get and firms that are fortunate enough to have a stock on hand are besieged with orders. The pine market is firm with a good demand and apparently large stocks on hand. The hemlock market is causing some concern among local dealers as to the probable cut and source of supply for the next year. This year's cut is said to have been from forty to fifty per cent. lower than any previous year, and owing to the large amount of building under way in the larger cities in the province the demand has been very heavy, coupled with the best of prospects for the next year. Bark dealers state that whereas in other years they have been able to get from 25,000 to 30,000 cords of bark per season this year they have been able to get only about 12,000 cords. It will thus readily be seen that this year's cut has been considerably below the average and as the building trade continues to be good with expectations that next year will eclipse all records. The mills are preparing to take out a cut this coming winter that will again put the market on a firm footing.

The hardwood trade continues to be good, with fair prospects of further demands. The prices are normal as a rule, with a small advance in basswood and rock elm. Basswood No. 2 and 3 common is selling at $17 and 6/4 and 8/4 common and better at $37, an advance of $2 per M. Rock elm, No. 2 common and better, 6/4 and 8/4, has advanced to $37, but birch, maple and oak remain about the same.

Taken as a whole the trade in Ontario is good and promises to continue so for some time.

Eastern Canada

Trade conditions in Eastern Canada continue very good. The demand is much larger than the supply, dry stock being particularly scarce, with building operations active. The prices are good with a slight tendency to advance all along the line, owing to the scarcity of material. At present there is no birch in sight and manufacturers who use that wood to a great extent are considerably worried as to the probable future source of supply. Dimension timber has a good sale, although it is a little scarce. The export trade has been hampered to a certain extent by the recent dock handlers' strike in British ports. Steamers are tied up and consequently very little loading has been done, but outside of that trade is reported to be in good condition. An advance of 10s. for standard on the freight rates to London has been announced. Sulphite pulp in the Maritime Provinces has advanced $2 since last reported and is stated to be in good demand. A proposed freight increase on Canadian pulp from United States points has caused some little discussion. The proposed advance will come into effect in September and will amount to about 35 cents a cord. The American interests are strongly objecting to this advance.

The spruce trade is very active at the present time, although stock is very scarce, particularly dry stuff. Mill conditions are unsatisfactory and most of the large manufacturers have very little stock on hand. Prices are good, dealers seeming to be more anxious about the price. New York and Boston sales are good and business is expected to remain in fair shape for some time. Frames at Boston are being held at $25 by most manufacturers, although several sales are reported below that figure, concessions of 50 cents being granted to a large extent in connection with the lower figures.

Hemlock throughout the east is in good demand. The building qualities of this lumber are coming to the front in the eastern states to a great extent and in consequence it is being called for continually. Dry stocks are very scarce and the mills have practically no supply on hand. Prices are if anything on the increase, eastern boards bringing as high as $23, although most of the sales are reported at $22.50 and a small number at $22.

Building operations throughout Nova Scotia and New Brunswick are being pushed as the season advances and the Maritime dealers report a good demand. Shingles—cedar extras—have gone up in Boston. Most sales are reported as from $3.85 to $3.90, although it is said that many manufacturers are holding out for $3.95. Clears are selling at $3.45 and $3.50, which is considered a reasonable figure. Lath—particularly good dry stock—is in demand and are commanding good prices, 1⅝ in. being worth from $4 to $4.10 and 1½ in. from $3.70 to $3.80.

The market reports in general in this part of Canada indicate a large increase in the amount of business done over the same season last year and prospects for the future are very bright.

United States

The present crisis in the primary elections in Chicago has had little or no effect on the lumber trade in the United States, and there is little concern as to the outcome. The demand continues to be good with the mills working overtime to catch up with their ever-increasing business and also to get stock for the winter months. Prices are excellent with increases in certain grades. Dealers in the east report a good season with a heavy demand for building material. Hemlock prices in Buffalo have advanced about 50 cents per M. with a fair demand and well assorted stock on hand. Pine, on the other hand, is very hard to get, box lumber being particularly scarce. Business in general in New York State is active with building operations increasing with the advance of summer. The Boston spruce market is not up to its usual standard although prices remain about the same. Many dealers are complaining about selling on the old basis of lengths, but outside of that the market is in fair shape. The hemlock trade continues to be good. The prevalence of building throughout the territory in which hemlock competes with Southern pine and other woods, is absorbing a large amount of hemlock, dimension and sheeting. Prices are well maintained and trade in general is in a much more prosperous condition than last year. At the present time there is a large consumption of coarse lumber in box manufacturing, Northern pine being particularly in demand. The box dealers are clamoring for stock and while the dry supply is practically used up, the green output is spoken for far in advance. This shows the strong hold the softer woods have on the box market. In the West the situation is good, with an ever-increasing demand and fair prices. Dry stocks are well reduced and are broken, and it will not be long before considerable of the present year's cut is mixed with old stock to fill orders. The mills are all running and a slightly larger cut than last year is expected. For fir the demand is heavy, silo material being particularly in demand. Cypress has gone up, an increase of $1.50 per M. being reported in sidings, and it is said that several firms have withdrawn quotations from the market altogether. The high waters in Louisiana and the Southern States are causing a shortage of cypress and yellow pine, but as the water is gradually receding it is expected that the mills will again be in operation and running full time in the course of the next couple of weeks. The Southern pine market shows a somewhat better demand. The mills are getting into good shape again but many of them are oversold and expect trouble for some time in placing orders. Shipments are being made somewhat more promptly now as the high water is receding but they are still hampered with a car shortage.

The hardwood business looks a great deal more promising than it did a few weeks ago. The Mississippi waters have fallen to a great extent and logging is being resumed in Arkansas and the Mississippi delta. Dry lumber is scarce but the demand is urgent and prices are well maintained. Plain oak, elm and cottonwood are principally in demand—in fact all dry hardwoods are scarce and the demand is large, Northern hardwoods, on the other hand, are in a very satisfactory condition as regards both demand and prices. All available stocks in Michigan are reported spoken for and dealers who have maple, birch, beech, soft or rock elm on hand are holding fast to prices and expecting further advances. Maple, basswood and beech are worth from $1 to $3 above the figures of a year ago. The output of birch is limited and it is picked up as fast as it is in shipping condition. Maple of 5/4 thickness is very much wanted in Buffalo at the present time and plain oak is also in demand.

Great Britain

Generally, the lumber trade of Great Britain has been depressed somewhat of late as a result of the dock strike which originated with the cessation of work by the lightermen, which stopped the delivery of timber from ships arriving in the docks. In face of the deadlock which prevails at the docks at the time of writing it is satisfactory to learn that the Port of London Authority are disposed to meet the members of the timber trade in their present difficulties by granting, in the case of cargoes intended for overside delivery, a modification of the usual charges made on landed goods.

As a relief to the naturally quiet conditions obtaining in London, the trade at Liverpool is fair, with good deliveries of timber going into consumption. A healthy demand continues for spruce, while pine is still a strong issue. Timidity is experienced in transactions for future delivery, this being attributable to the speculative condition of the freight market. It need hardly be said that freight rates are

Lumber You Can Sell With Satisfaction

TOWING A LARGE RAFT OF LOGS TO SAW MILL AT SARNIA

You want to tie up with a Company that can supply your lumber quickly and cut your bills to order the year round.

Besides there is great satisfaction in selling to your trade lumber that is carefully cut and always strictly up to grade.

Complete dry stocks of Norway and White Pine always on hand for prompt shipment.

We also make a specialty of heavy timbers cut to order any length up to 60 feet from Pine or B. C. Fir.

"RUSH ORDERS RUSHED"

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

A. F. Holden, Pres. J. M. Diver, Vice Pres. and Gen'l. Mgr. E. C. Barre, Ass't. Mgr.

still rising. Recent arrivals at Liverpool include shipments of pine, birch and spruce from Montreal; birch and doors by the "Empresses," from Quebec, and spruce from Pictou, N.S.

There is little feature to the trade of the Bristol channel ports and things are quiet, although there are healthy prospects for business as soon as the labor troubles are satisfactorily and permanently settled.

Business continues fairly brisk at Manchester, with the bulk of recent imports going into direct consumption. The last arrival list is the heaviest since the season commenced, over 4,000 standards of spruce having arrived, largely from Miramichi and Quebec. At the time of writing the "Manchester Shipper," now discharging, has not less than 2,000 loads, including waney pine, birch and elm logs, pine deals, boards and sidings, spruce deals, etc.

At Glasgow, trade continues on moderately steady lines although a fair movement has been in evidence, both from the stored stocks and also the fresh arrivals coming to hand. It may be mentioned that the total deliveries from the public yards, so far as the year has gone, show a very considerable increase as compared with the same period last year. No doubt this is not attributable to the improved demands alone, but is partly due to the fact that imports this year have been on a rather more restricted scale. The result is that stocks generally are now unusually light, which is an important factor in the maintenance of values. The demand for Canadian yellow pine goods remains rather quiet, the little request that exists being confined chiefly to the lower grades in broad specifications. First quality deals and sidings are little asked for, thanks to their advancing cost, which precludes their use for anything but the highest class work. For ordinary purposes, where cost is a primary consideration, recourse is had to cheaper substitutes. For instance, there is a choice of Siberian pine, sugar pine, Californian pine, Mexican pine, silver pine, Columbian pine kauri pine, Californian redwood, cypress, Gaboon mahogany, to mention but a few, most of which would probably never have secured a footing but for the vastly increased cost of Canadian pine. As it is, there is a growing consumption in these woods, and, of course, a corresponding shrinkage in the case of the Canadian staple.

Interesting Facts About Timber Cruisers

An ardent admirer of the craft exclaims:

"The timber cruiser is the autocrat of the woods. He is the king of woodmen. He lives well, feels well and does well financially. He never has to take a vacation to get away from the grind of the office. He never has brain fag. His liver is always in order, and his conscience is clear. At night he sleeps without disturbing dreams. But he has to work harder than most men think it possible to work."

Probably the average timber cruiser would smile a sardonic smile at this glowing outburst. Yet deprived of its poetry it carries some truth. There is no doubt about the cruiser's appetite and his ability to sleep. In the old days he lived as well as the weight of his pack would allow. In these later times, when railroads and wagon roads in the older timber states penetrate the remotest sections he is never far from some base of supplies. In some sections of the far West and in Canada he is still forced to plunge into the deep forest many miles from any settlement or any place where he can lodge at night or procure food.

When timber cruisers first began to range the pine forests in Michigan and Wisconsin they had to cut entirely loose from civilization and remain in the forest, many miles—sometimes a hundred or more—from settlement, living like the wild Indians for weeks and months. The first cruisers were men like Dr. David Ward, who inspired by the prospect of great gain through adventure and pioneering, as well as by faith in the possibilities in untraversed pine forests, penetrated beyond the ordinary range of timber lookers and lumbermen, discovering chances for the entry of land that by the rise of value might enrich them. Such men blazed the way for the practical lumbermen who cleared the rivers and creeks, erected dams and mills, and pursued the regular course of logging and manufacturing of lumber.

As the lumber industry developed, there was a call for pine stumpage, and timber lands began to be marketable property. Any proposition to sell or buy carried with it an estimate of the quantity of standing timber on the area involved in the deal, and thus there gradually evolved a class of estimators, or cruisers, as they came to be called, because they cruised through the forests in quest of timber chances.

Through experience the cruiser becomes expert in his vocation, and acquires almost a second-nature aptitude in surveying with a look a group or stretch of standing timber and quickly coming to a judgment as to how much timber by the thousand feet, board measure, there is to the acre. He can walk through the woods, as one observer says, and determine within 10 per cent., frequently within 5 per cent., the amount of lumber that can be made from the standing trees. Besides the saw timber that can be converted into a given amount of lumber, board measure, he can tell one how many pieces of piling, railroad ties, shingle bolts, telegraph poles, or any other kind of coarse forest products, even to cordwood, can be cut from a given acreage of land.

The cruiser, when he goes afield, works fast and hard, making long days and staying out in the woods until his task has been completed. A good cruiser can "look" or estimate a quarter section each day, and sometimes doubles that area for his day's work. He performs his arduous task for a compensation of $5 a day. He has an assistant or compass man, who is paid $3 a day.

The outfit of a cruising expedition consists of a compass and a pack or packs loaded with provisions, the amount of the latter being determined by the distance into the forest the cruiser intends to go from his base of supplies. Salt pork forms the substantial part of the cruiser's commissary. He adds flour, corn meal, tea, coffee and such other essentials and luxuries as suit his tastes. Tobacco and pipes solace those who smoke, and probably most cruisers indulge in the weed, and possible a little of the "ardent" is carried along for colds, bruises and snake bites, but not much, for a satisfactory amount as a beverage would too much add to the weight of the pack. The culinary outfit consists of a frying pan, a tin dish or two, and such simple things as pedestrian campers usually carry. Everything of that character is figured down to the least possible bulk and weight.

The compass man generally is an apprentice to the estimator, and his apprenticeship is a hard one; but his wage of $3 a day is considered good pay for a man who is just learning the business.

When the cruiser and his man arrive at the timber land that they intend to estimate, the first thing is to find a section corner, for that is absolutely necessary to determine the boundary of the land they are to work on. The finding of a section corner often is a difficult task. In the north woods it generally is a cedar post driven deeply in the ground so that its top scarcely shows above the surface. Often it is covered with leaves, decayed foliage and branches, and may be overgrown with brush or obscured by fallen trees or branches. It is the custom of surveyors to mark trees, called "guide trees," as near the corner as possible, from which search can be made for the post, or stone, which sometimes is used. Four trees are blazed, forming a quadrangle the centre of which is the post. The cruiser knows that he must search inward from these four trees in order to find the corner. The guide trees are blazed on the sizes, but the hewn spots frequently become so obscured by overgrowth that none but the most practiced eye can detect the blazed trees from a little distance.

The cruiser has a blue print map, with the section and quarter sections marked on it, together with some streams and a few roads, perhaps, which assist him in determining the general "lay of the land." Instinct and practice do the rest.

In going through the deep woods in search of land of be "looked" the aid of the compass is depended on. In later times, when the timbered sections have been traversed by railroads, cut through and through by highways and logging roads, and to a considerable extent are occupied by settlers, the compass is less essential than in the time when the forests were unbroken for many miles, and the only means of communication were the streams and an occasional tote road leading to some remote logging camp.

When the cruiser arrives at a point that he concludes is near the scene of his intended operations he selects a tall tree that stands in the direction in which he wishes to go and walks straight toward it, never taking his eye off the tree. He may have to struggle through windfalls, plunge through gullies and tear his strong garments in going through dense brush, but he never loses sight of his beacon tree. He determines the distance to the point where he wishes to begin operations by counting his steps, figuring by tallies—sixteen tallies making a mile, generally counting 132 to 140 steps to a tally—and so expert do these roadsmen become that they can "tie up" at the end of a mile of walk through the woods, up hill and down, and over the most difficult ground, within a few paces of the place the map shows them that the section corner mark should be.

In estimating the timber on a tract the cruiser goes over each forty acres twice. The compass man walks ahead, the cruiser following and estimating the timber. At each tally the compass man steps off twenty-five paces and measures half a dozen trees. Sometimes a circle with a radius of twenty-five paces is figured as an acre, and the cruiser by taking the average circumference of the trees in this acre and counting the trees can reach a conclusion as to the amount of timber on this single unit.

The foregoing describes one method of estimating. Another is by going over the land in strips, of four or five rods in width. The cruiser takes one side of the zone and the compass man the other. Beginning at one side of the "forty" the two men walk these parallels, the compass man counting the trees and judging of their average size, the two men conferring together as to that, while the

Douglas Fir for Finish

is rapidly gaining favor in Eastern Canada. For years this beautiful wood has been used extensively in good work in the west but is now recognized in the east as a first class Material and is specified for the best work by Architects and Builders who think.

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CANADIAN WESTERN LUMBER CO. LIMITED.
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FRASER MILLS. B.C.

Capacity 750,000 ft. Daily

Construction Timber, Car Material, Interior Finish, Cross Arms, Edge Grain Flooring, etc.

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cruiser records the result on blanks he carries for that purpose. When the "forty" has been gone over in this way the result is easily ascertained. In this work the men become so expert that by a glance at a tree they quickly, and seemingly by instinct, reach a judgment as to the amount of timber in the trees, can tell how many saw logs there are in a given tree, of what diameter, and the quality of them. They also can name the different kinds of wood, and in case the timber is mixed, what the percentage of each kind is, and what kind of merchantable stuff each variety can be worked into. Old cruisers have said that they can go on to a forty, or an eight, or even a quarter section, and by going over the piece carefully, without any special attempt at record, can very nearly arrive at a conclusion as to how much merchantable timber there is on the tract. Not only can trained cruisers do this, but any lumberman, who perhaps has cut the logs from many square miles of land, and has, in quest of timber, hunted the woods for years, can with a near approach to accuracy reach an estimate of the amount of timber on a tract by merely walking over it and carefully estimating the stand by eye-measurement, so to say, sizing up the trees. Really the cruiser is the man who brings the estimate that the owner, the would-be purchaser, or the log jobber previously made to a recorded exactitude. This is desirable as a basis for sale and purchase. It also relieves the seller and buyer of much time and hard work.

When the day's work of the cruiser and his compass man is finished the latter prepares the evening meal while the cruiser proceeds to make elaborate compilations of the day's estimates. He figures the amount of timber on each forty acres, and by means of a rough sketch shows where the timber is good, where it is sparse, where it is burned over and other features that may be valuable to his principals.

These sketches he embellishes with topographical outlines, for the configuration of the surface is important. Features in respect to taking out the logs must be reported. Rough land, with poor chances for making logging roads, is an objection to an otherwise good timber tract. In such cases a valley, marsh, lake or other level by which hauling can be made easy is a desirable feature as furnishing a way to haul logs without surmounting hills.

We will assume that at the end of a month, during which time the cruiser and his compass man have travelled possibly hundreds of miles, mostly on foot, they go back to town and report what they have found. The cruiser is paid $150 for his services and the compass man $90. This is considered good pay for men who have had their expenses provided for and have had no opportunity to spend their wages from week to week. But the city man who earns as much at light office work or mechanical employment would scarcely change places with the cruiser and his compass man, for he would dislike the fatigue, the solitude, the hazard, the discomfort that comes of prolonged out-door life in the woods. Yet the city man could do worse than to be a cruiser. Against the hazard of the forest he runs the risk of multifarious accidents in the city, constantly jeopardizes his health, breathing foul air, has to coax his appetite with strong drink, becomes dyspeptic, nervous, disgusted with the monotonous grind and the selfishness of strife for gain or a mere livelihood, and is the victim of all sorts of annoyances. The woodsman breathes pure air, is invigorated by outdoor exercise, has a good appetite for the coarsest food, sleeps the sleep of the weary and never knows that brain and heart fag that comes of too much contact with men and competitive strife.

The functions of the cruiser is very important to his principal, for on his reports hang sales that involve thousands and hundreds of thousands of dollars. He must be as honest as a man can be and also must have the secretive faculty, as it is an unwritten law that the cruiser must keep his information for his employer only. If the cruiser is known to be dishonest or inclined to blab to outsiders his name is "mud" among timber owners and dealers.

At all leading points in the lumber regions, where there are groups of mills, an assemblage of timber dealers and log operators always are to be found a number of professional cruisers. They even have offices or headquarters with some lumber concern, and are ready to take to the woods whenever a favorable opportunity offers. Cruisers sometimes become timber dealers, and pick up advantageous chances for themselves, but the majority stick to their regular vocation, content with their wage, while their work is the basis for the amassing of fortunes by those who employ them.

The old Machinery Hall in Lansdowne Park, which was built for the first Central Canada Fair at Ottawa, twenty-five years ago, has been removed. The hall contained some valuable timber which will be used for construction in other parts of the grounds. Some of this timber which has already been in use for a quarter of a century is reported to be as good as ever, and worth $75 a thousand.

What a Lumberman Has to Contend With

By a Lumber Doctor, in the St. Louis Lumberman

When we get to where we can sign our names to checks and the checks get paid when presented at the bank, we often forget what the yard man has to contend with. I mean by the yard man, the man who is employed in a yard in a town or city of, say 3,000 inhabitants or over. If we would only go out in a yard and tie ourselves to him for a day at a time once every six months, we might learn a great deal. He must be a great big-hearted, broad-shouldered sort of a fellow who never gets mad and can stand all kinds of unpleasantness. He gets blamed for everything that goes wrong, and his case puts me in mind of the instructions the boss plumber gave me the day I started to learn the plumbing trade. He said: "Now, d—n you, I want you to distinctly understand that no matter what goes wrong, you are to blame and are to keep your mouth shut about it, too; and no matter what you do that deserves credit, I get the credit, and I am to keep my mouth shut then." If some of us come out into the yard and load up all the suff off a pile and then don't put it on the want book when we run out, the yard man gets the blame for not keeping up the stock. We give the yard man instructions not to cut up boards and let scraps accumulate, but when a customer comes in and says he wants a board 12 inches wide and 4 feet long, we say "just go out into the yard, the yard man will fix you up"—and then we raise Cain with him again when we find the scraps. Now then here comes a good customer into the office and pitches down a bundle or a sack full of empty sacks and says, "I want to pay my bill." Here is twenty empty sacks I want credit for. You give him credit and afterwards pitch the sacks out on a pile in the yard. When you invoice you run across a lot of stray sacks and raise the devil about it with the yard man. If the driver is told to load on some joists while the yard man is gone to dinner or is busy somewhere else, and turns the pile all upside-down, the yard man gets the blame. Then you loan the saw or hatchet to a neighbor and he doesn't bring it back; the yard man is expected to stand the blame for not having it in place when you reach out for it. If we forget to put the address for delivery for some contractor's stuff on his ticket, and there is more than one job, and he sends it to the wrong job—again the poor yard man gets the deuce. Then if some one brings back stuff and tells you about it and gets no credit for it, and the yard man sees him talking to you and thinks you credited it when he returned it, then when the customer makes his kick the yard man gets the blame for not making the credit ticket.

Taking everything into consideration, his lot is a pretty hard one.

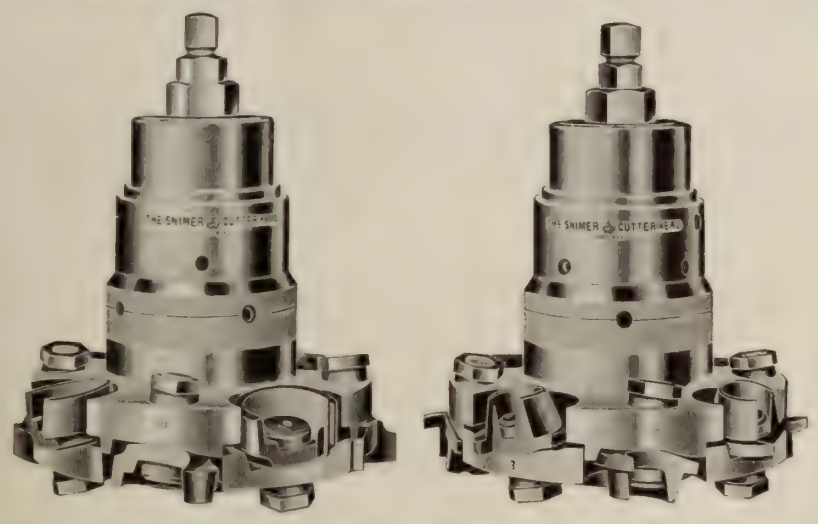
But, on the other hand, the office force gets theirs, too, when they have to adjust the mistakes that are made by errors and carelessness of the yard force. There are miscounts, bad grades, wrong lengths and various other things that they have to account for. So the best thing to do is to keep posted and learn the business, and know that you are right.

A Cure for the Wholesaler

There is not a retail lumberman who does not quite often take occasion to write for prices on several cars of yellow pine, and quite often as many as ten cars at a time. Now where does he get his list to write to? Get on that list of every retailer, Mr. Wholesaler, and you are all right. Now it costs lots of money to get on that list. Some firms get on my list by sending us an especially good car of stuff, and we remember it. Others get on by persistent advertising in the lumber journals; others get on by novelty advertising, such as paper clips, paper weights, daters, letter-openers or something of that sort; some by the persistent sending of price lists. One firm has got orders for eight cars of lumber by sending us a yard tool box containing a saw, a hatchet and a rule at a time when we did not know them. They sent it to us unsolicited, and I sent them an order for a car of lumber unsolicited, and as it was good we have sent them seven more. On the other hand, I have in mind a firm who have sent us shingle quotations every week for several years, but think their shingles are not good because they send out their quotations on the very cheapest paper, in the very commonest envelope obtainable, and under a one cent stamp—and while this is unjust, it is a fact. Many firms I patronize or don't patronize on account of the men who travel for them. I believe if the wholesaler will get a nice little reminder on the retailer's desk it will be a fine "ad;" not one to put in his pocket or take home, but to put right up in front of him. It will be the very best kind of an investment.

Don't buy the very first thing that you see, but buy something that will make us think of you, and you will get the business. I just thought of a scheme; get a photo picture of a nice young lady and have it put in a circular frame fixed to hang on the desk, and put on it "I'll get the letter if you send your order to ——— Lumber

THE SHIMER CUTTER HEADS



The "Shimer Limited" Cutter Heads with Expansion, Fig 627 and 628
Price, for Flooring, $72.46 per set complete.

Planing Mill Costs

Scientific efficiency in the planing mill should not exclude the Cutter Heads on your machine. What they are and what they will do determines to a great extend the cost of your product. This being the case it is incumbent upon the buyer to place in the hands of his men the most efficient Cutter Heads made.

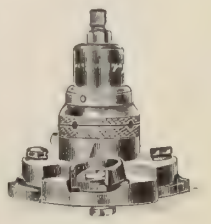
The Shimer Limited Cutter Heads are particularly suitable for the flooring manufacturer who owns machines with a feeding capacity of 150 lineal feet or more per minute. They are made to stand the hard knocks incident to matching all kinds of lumber at fast feeds and are provided with all the time and labor-saving features for which the Shimer Cutter Heads are known. In addition they have a very practical and safe self-centering device which also clamps the Heads to the spindle in so secure a manner that no set screws are needed.

These Heads are fitted with reliable, long life Circular Bits that have a specially acute cutting angle for clean work at fast feeds, and are fastened to the Head with holding bolts made specially strong in material and design for this particular purpose. These Circular Bits contain from three to five inches of cutting edge and have in their contour the exact counterpart of the shape of the mould, guaranteeing uniform patterns as long as there is a piece of the Bit on the Head, when they can be duplicated at small cost and the pattern perpetuated indefinitely. This means a great saving in material as over-runs of flooring can be duplicated whenever desired or stock made with the surety that the tongue and groove will always fit.

Write us freely about your Cutter Head conditions, giving measurements of your fastest machine, and if it will swing the Heads and feed over 150 feet per minute, they will be made to fit it and sent on trial for 30 days.

Do it now!

Our Popular Cutter Heads

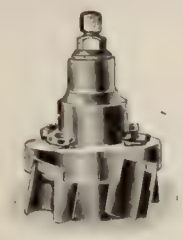


Figs. 202 and 203 are the leading tools, having Conical Duplex Bit Seats and The Shimer Cutter Head Expansion. Flooring Bits will work from 13/16 to 1½-in. in thickness with tongue and groove proportions expanded to suit.

Price, net, complete with one set of flooring Bits, the gauges for setting the Bits and wrench $40.95
Extra Bits for Flooring 11.44
Extra Bits for Ceiling 10.40

With 4 Bits to Each Head

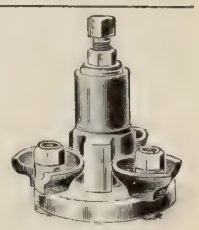
Jointer Heads



Figs. 54 and 55, with four Bits in line of work, shear the cut downwardly to insure a sharp and clean upper edge. They cut clean and free and are shipped out under our guarantee to give satisfaction.

Price, Heads, complete with Bits for 15/16 to 1¼-in., net only $31.20
Extra Bits 1½-in. face, the set 10.40
Extra Bits, 2-in. face, the set 12.48

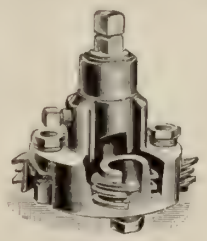
O. G. Batten Heads



Figs. 48 and 49, represent our best tools for this work, having 3 Bits in line of cut so arranged upon their seat inclines as to protect all but cutting edge against friction and wear.

Price, two Heads, complete with Bits, net only $31.98
Extra Bits, each, net 2.08

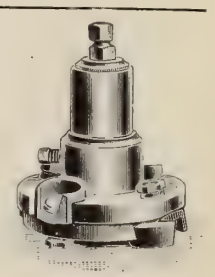
Double Ceiling Heads



Figs. 45 and 46, are made in solid section, steel forged, with Bits of special design to cut two tongues on one edge of board, and two grooves on opposite edge, to be re-sawed for two thin boards tongued and grooved. Very complete.

Price, with one set of Bits, net $40.94
Extra Bits, per set of (8) 16.64

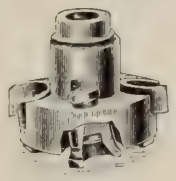
Ship Lap Heads



Figs. 38 and 39 are made of steel forgings, in solid section, designed especially for heavy duty. The bit seats have the latest improved slants to provide free cutting edges, and we sell them at the following low and net prices:

Heads with one set of Bits to work 15/16 to 1½-in. thick, net $34.84
Extra set of Bits 11.96

Door, Sash and Coping Tools



That save all the hand fitting. No changing of patterns, therefore, no trouble in framing door and sash parts when matched with the Shimer Cutter Heads.

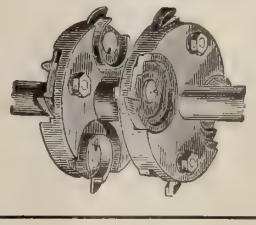
DOOR AND SASH HEADS

Fig. 82, solid flange, Door Head $10.75
Fig. 84, Expansion Door Head 13.35
Fig. 86, solid flange, Sash Head 9.75
Fig. 206, Expansion Sash Head 12.35
Bits to work 1-in. to 1¼-in. Doors, 4.. 7.28
Bits extra to work 1 to 1¼-in. Sash (2 Moulded Bits, $4.30; 2 Rabbeting Bits, $2.86) 7.16

COPE HEADS

Fig. 83, Cope Heads (2) $12.90
Coping Bits, each 1.43

The Shimer Box Board Matching Heads



make a uniform cut and close fit, as well after years of use as when new, with no friction upon the Bits. For thicker material the Bits can be expanded.

Price for two Cutter Heads to match ⅜ to ½ inch, $23.60.

We also furnish when desired a Yoke Mandrel with self-oiling boxes, boxed f.o.b. Galt, $11.05.

SAMUEL J. SHIMER & SONS,

Branch of **Milton, Pa., U. S. A.** **GALT, Ontario, Can.**

Co.," or something along that line. Just a little different from the every day grind. Try it and see how it pans out.

A Lumberman's Dream

Some lumbermen claim that they can't find anything about their yards to advertise, but the other day I got a letter from a retail dealer, a friend of mine, who wrote:

Dear "Doctor:" You know I wrote you some time ago asking you, as secretary of the Lumber Dealers' Association, to try to get my neighbors to quit selling lumber into my town; and I got awful mad when you wrote me "God helps those who help themselves"—"convince your customers that your place is a better place than your neighbor's to buy their material—Advertise." Yes it made me mad to think we should be such darned fools as to elect and pay a man $3.30 a month to tell us something that we already knew about. As for quoting the Scripture to me—I know more about the Bible than you ever will be able to learn—you darned old sinner you, but as to the other two. The first is easy enough to tell a fellow, but isn't so easy to do, but I guess if a fellow knows how to do the last item mentioned it will do the middle one for you. I was so mad at you when I got that letter that I be blamed if I could sleep at all that night, and I tried counting 500, and then tried holding my eyes open as long as I could, and the longer I counted and held my eyes open the madder I got till I know if I had been able to get at you there would have been one scared Dutchman. Well, I either went to sleep, or somewhere else, and began to see that word "advertise" loom up before me; and then I began to wonder what to advertise if I would be fool enough to spend my money that way. Well, as I said, I don't know whether I was dreaming or what, but I seemed to start out of the back door of my office into the lumber yard when a fine big bunch of 5 to 2 Clear Cedar shingles stepped up to me, made a bow and said, "I am a representative of a car of my class, just arrived from the Pacific Coast. I am of the upright clear family, all well made and from a family who have stood the weather for forty years on a stretch. Tell your customers to nail me on with a galvanized or cut iron nail and I am good for fifty years. I am—

"Hold on there Cedar," said a bundle of Spruce Siding, butting in, "do you want to take up all the boss' time allotted to the West? When it comes to being the nearest descendent to the good old White Pine, for which we all have respect, there is none of them who comes as close as my people do. I take and hold paint better than any of the others do, and hold my position well. 'Tis true I am easily worked, but that is a virtue in building material, and not a vice, and you can tell your customers that they can depend on us to do our part towards upholding your reputation, besides—

"Shut up old eight-day clock, said a fine 26-inch Clear Red Wood Board, 20 feet long. There are others who have virtues besides Spruce. We beat the world when it comes to size and beauty. There is scarcely a limit to our dimensions. We can puzzle the largest saws in the world. A couple can waltz all night on one side of our boards and never step off, and there will be plenty of room for the orchestra on us, besides. Then when it comes—

"Step back Redwood, as the West coast has only five minutes left of its allotted time and that belongs to us," said a fine specimen of Douglas Fir. "We want the boss to tell the inhabitants around here about us. While we take paint and stand the weather, we claim to be the toughest lot that will do that—and when it comes to porch flooring or stepping, we are far ahead of all the rest."

At this point the switch engine shoved in the Southern Delegation and the voice of the Douglas Fir was lost amid the puffing of the engine and the clang of the bell. The first to step from the "Special train from the South" was Louisiana Cypress. Bowing low to me, Louisiana said: "So few people around here know me that I want you to expound my many virtues to your customers. It would take an entire train to carry my different garbs. I have many shades and take any varnish. Outside I am at home, and thrive inside as well. On top or below is all the same to me. You can't find another timber that can be made into as many things and adjust themselves to the occasion like I can, and if I am a door, a piece of siding or a piece of finish, it is all the same."

"Run off on the switch then," said the big burly Yellow Pine Timber, who had just stepped from the sleeper. When it comes to "general use," he chooses us to make up the greater part of his army, for we are the multitude. If they would draw on all the rest for a supply like they do on us, you would hear 'em holler. Tell your friends to house in their chickens with us, and also their horses and cattle. Tell them that we will save them 30 per cent. on their farm machinery if they will buy us to house it in, and tell them about the drop siding and lap siding that is made of us, and also the beautiful millwork, and then the fine vertical flooring and the mouldings; and when it comes to "finish," we are the "brightest star."

That isn't all, neither. I don't know how long it might have gone on, for at this point a piece of Native Oak got jealous at me for listening to the song of the sirens and rolled off the platform and hit me on the top of the head and brought me to my senses; and I woke up and found that I had knocked my head against the bed post. I have enough to advertise now for a year, and 'Doc.' I want to thank you; and my dues to the association will be forthcoming whenever you say the word, and if I don't bring 'em back it isn't going to be my fault, and I remain,

Sincerely yours,

"CHARLEY."

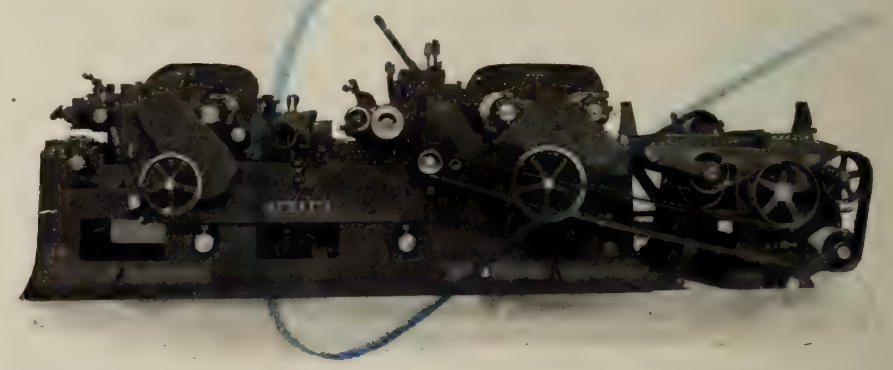
A New Fast Feed Matcher

The Berlin Machine Works, Limited, of Hamilton, Ontario, builders of high grade wood-working machinery, recently made the announcement that their engineers had built a new high-efficiency planer and matcher. This new machine is claimed to be the most powerful planer and matcher on the market to-day. It is built compact and low, every part being easily accessible from any side. It is constructed so as to permit the use of a special feeding mechanism for manufacturing a high grade of lumber at 250 lineal feet and more a minute. But where there is no necessity for manufacturing at this high speed, every convenience has been provided for the operator to handle his machine with the least possible effort. He has the feed of the machine in instant control from his natural position, being able to start, stop, or reverse almost instantly. Any parts that might be dangerous are encased for the protection of the operator.

These machines have already been installed in mills in every wood-working section and reports are that a number of manufacturers have been able to reduce their costs as much as forty per cent. and sixty per cent. by the installation. At the same time, a saving in grade all the way from ten per cent. to thirty per cent. is effected. From the standpoint of power consumed, they are a great improvement over the old style planer and matcher. While it is true that they use more power than the old style, one will do the work of two and three of the old style, and consequently there is a saving not only in the amount of power consumed, but in cost of labor that naturally is added to profits.

Another thing that assists in the reduction of upkeep cost is the elimination of gears—there being but five used on the entire machine. A heavy roller bearing automobile chain that is claimed to be capable of transmitting eight times the power required of it, drives the feeding mechanism, taking the place of the train of gears formerly used.

With the belting arrangement used on the new Berlin matchers, it requires less power to drive than any high-speed planer and matcher built. Independent gravity tighteners on the slack side of all belts give the maximum pull for every pound of power applied.



New Fast Feed Matcher made by the Berlin Machine Works, Hamilton, Ont.

Automatic takeup boxes on cutter head journals and side head spindles adjust with the wear without any attention whatever from the operator.

A number of automatic features lessen the labor of the operator. One of these is the gravity belt tighteners mentioned, which, aside from making the adjustments much better than can be done with the old style screw takeup, double the life of the belts. With gravity tighteners, belts go back to their normal condition after a heavy strain instead of remaining tight. The automatic take-up boxes adjust to the smallest fraction of an inch, yet do not cause the journals to heat or get loose. Sight feed oilers are another help to the busy operator.

The cutter heads are the 6-bitted thin knife round type, and produce an excellent finish to the stock. The knives need not be removed for grinding or sharpening, as provision has been made for doing this with them remaining in the heads. A more accurate cutting circle can be secured in this way.

The profiling devices at the out-feeding end of the machine, used for making mouldings, drop siding, celing, partition and various form patterns is very simple and probably the most convenient arrangement for making any shape of profile work. Milled bits which always insure a standard shape to the pattern used.

Both the horizontal and vertical adjustments for the side heads are made from the front side of the machine. The side heads used produce just as high grade work as the cutter heads.

"AMPHIBIA"

(WATERPROOF)

Leather Belting

and the frog are both alike

in as much as both are waterproof,—hence our registered brand. And we want you to remember this when ordering belting for any drive where moisture is present.

As to cost

"AMPHIBIA" costs less per day of service

than any other belt — therefore "AMPHIBIA" is the least expensive although it may cost you a little more at first.

This Higher first cost is due to the fact that we put more in the belt, more brains, more care, better material and better workmanship.

All this makes a big difference to you.

Sadler & Haworth

Tanners and Manufacturers

MONTREAL 511 William Street
TORONTO 27 Melinda Street
ST. JOHN, N. B. 89 Prince William Street
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To insure Satisfaction—State where belt is to run

"AMPHIBIA" "AMPHIBIA" "AMPHIBIA" "AMPHIBIA"

Lumber Waste in Box Factories

The lumber used in the manufacture of boxes is a pretty expensive item, from the standpoint of cost. Though the material market just now is favorable to the box man, in that prices are lower than they have been heretofore, it is safe to assume that the cost of manufacture is not going to be reduced measurably in the immediate future, but that, on the other hand, the chances in favor of the cost of lumber being increased gradually and steadily are excellent.

Any effort to reduce waste in the manufacture of boxes is therefore one which is worth attention. Under the best conditions, from 15 to 20 per cent. of the lumber bought is wasted, and if the lumberman is using a million or two feet a month, this item mounts up in a startling fashion. A million feet at $20 is $2,000; and if one-fifth of that goes into the waste pile, the loss is $400. If the cost of the lumber or the consumption is greater, up goes the loss through waste.

A scientific management specialist might be used to good advantage in the box business, if he could be persuaded to go through a shop and suggest methods of reducing the waste. It might cost a few thousand dollars to get expert advice from this direction, but maybe it would be worth it.

If the specialist's doctrines, properly applied, will assist the government in finding out why it takes so much more money for its shops to build a battleship than for a contractor, who is making a fat profit on the deal, there is no reason why the same general ideas would not be of aid to the box manufacturer in solving his particular problems. Without attempting to go into the technical part of the efficiency thesis, and assuming that the principles of horse sence worked out with special reference to reducing waste, will be efficacious, it is likely that the very focusing of the attention of box men on this feature of the business would result in some ideas being developed which would be of value to the trade.

One feature which commends itself is that in getting business an effort should be made to secure contracts for supplying as wide a variety of packages as possible. The advantage of this is obvious when it is realized that the more cutting lengths the sawyer has before him, the more good pieces he is likely to be able to get out of a certain board. The factory which makes only large packing cases is more likely to have a large loss in material than that which has a wider variety, including smaller boxes as well as large ones.

One large box company makes a point of giving each of its sawyers exact lists of the cutting dimensions of the boxes which are being made, no matter what stock the individual sawyer may be cutting. The various cutting lengths are in evidence so that if the sawyer finds that his board will not work up into an exact number of pieces of the size that he is cutting, he is able to cut the short end into smaller pieces, the length of which is determined by the cutting sheet before him.

A block, cut to proper size, is used in expediting this work, being fitted in so as to provide the proper length of the short piece. Its length, breadth and thickness vary, and by using the different dimensions, pieces conforming to those listed may be cut without the necessity of changing the adjustment of the saw.

The sawyers are impressed with the fact that it is desirable and necessary to waste as little lumber as possible, and their co-operation in working out the plan is insisted upon. Usually this is secured without much difficulty, although of course there is usually a tendency to cut the lumber "the easiest way," without regard to the economy of the operation. But by having a wide variety of cutting lengths before the sawyer, he is given an opportunity to reduce the waste as much as possible, and in this way much of the loss at the saws is gotten rid of.

An effort is made to dispose of the narrow pieces as well as the short ones. These can be worked up into strips and other material, though frequently it is discovered that the labor involved in handling the scrap is so great as not to justify carrying forward the plan of economizing. That is a feature to be taken into consideration. The labor involved in handling is considerable, and therefore when the cost of rehandlng becomes considerable it is the part of wisdom to scrap the lumber without trying to get more value out of it.

The ultilization of a large part of material which would otherwise be a total loss has been secured in many box factories through the use of a veneered stock. Thin lumber can be purchased at a low price, as defective pieces can be used which would be unfit for any more elaborate work, and the average veneer manufacturer would be more than willing to dispose of his reject at a price which would make it worth while to the box man. It would enable the veneer mill to move a lot of stock which in most cases is burned in the boiler room.

The making of veneered stock for use in boxes is not a simple proposition altogether, and more than one factory which has undertaken to dispose of part of its waste in this way has given up the job because the experiment did not prove satisfactory. Trouble with glue is one of the prolific causes. Usually glue is heated to too high temperature when it is being prepared for use in veneered work. One hundred and forty degrees is plenty of heat to give it, as it is not necessary literally to "cook" the material in preparing it. The heat is simply for the purpose of enabling the glue to flow easily and to be pressed into the pores of the wood.

Care in preparing the glue and spreading it will enable the box man to get excellent material with which to turn out his packages. The narrow pieces of lumber which are used in this work should not be placed too close together. Plenty of glue should be used, and for this character of work it is not always necessary that a high-grade material be used. The cheaper grades, provided they have plenty of body, can be used to good advantage.

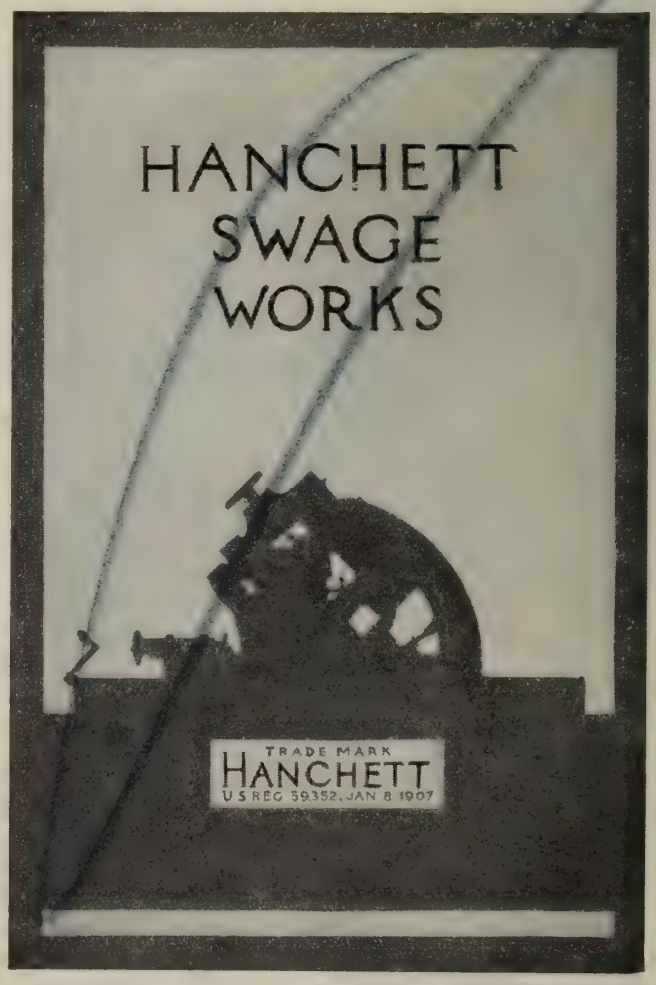
The result of the manufacture of this veneered stock is that the box man has utilized a lot of offal that could not have been gotten rid of in any other way, and has panels which are extremely effective. They can go into as good boxes as he is likely to turn out, and, in fact, many high grade cases are now manufactured with veneered stuff.

Speaking of the elimination of waste in the box factory reminds one that waste of labor is just as expensive as that of lumber. Where machines are taking stock from those immediately behind them, it is well to give them supplies of material which can be worked up in case the supplying machine stops for a few minutes. In some factories stock is piled up behind every machine, so that if for any reason the regular movement of lumber from one saw to another is interfered with, there will be nothing to prevent the succeeding ones from going ahead.

There is a good deal in studying the requirements of consumers. Boxes which now have certain specifications, which may not fit well into the plans of the factory, and involve considerable waste, can frequently be changed to the advantage of the user so that they will take stock which will work better into the general scheme. And by going over the stock carried in the yard and studying its possibilities one may occasionally develop plans for more effective use of material than are in vogue at the time.—Barrel & Box.

An Attractive Catalogue

The Hanchett Swage Works, Big Rapids, Michigan, manufacturers of machinery and tools for the care of saws and knives, have just issued a well-illustrated catalogue describing their filing room tools and machinery. The catalogue shows the various kinds of up-



to-date machinery and tools in this line, such as saw swages, shapers, sharpeners, stretchers, re-toothers, lap grinders, filing clamps, punches and shears, grinders, hammers, gauges, etc. It represents the last word in filing room tools and machinery and the company will be pleased to furnish this catalogue to anyone interested.

Canadian Headquarters for Lumber Insurance

Security **Lumber Insurance Co. of New York** Economy

42 Central Chambers, Ottawa, Ont.

Dominion License

E. D. Hardy, Canadian Manager
Ontario and Quebec

Canadian Deposit

Agents for Manitoba, Saskatchewan and Alberta : J. A. CHRISTIE & CO., Winnipeg, Man.

For British Columbia, address : Pacific Coast Department, Lumber Insurers General Agency 609 Corbett Bldg., Portland, Ore.

Agent for Maritime Provinces and Newfoundland : J. G. RAINNIE, Halifax, N. S.

ARE YOU SUFFICIENTLY INSURED ?

SPECIAL RATES TO LUMBERMEN

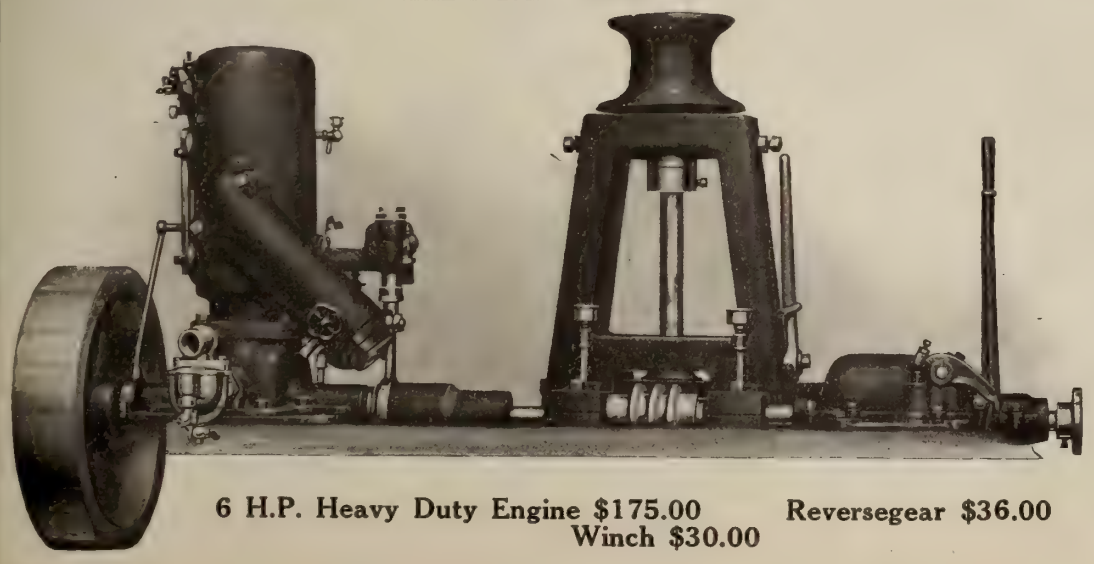
Jenckes Boilers

WE aim to keep on hand a well assorted stock of Horizontal Tubular, Vertical and Locomotive Type Boilers. Your enquiry will probably find us in a position to ship the required boiler at once ; if not it can quickly be built. Write us anyway.

The Jenckes Machine Co.

Limited

Sherbrooke - Montreal - St. Catharines - Cobalt - South Porcupine - Vancouver - Rossland
Works : Sherbrooke, Que., St. Catharines, Ont.



6 H.P. Heavy Duty Engine $175.00 Reversegear $36.00
Winch $30.00

River Driving Costs

will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25′ punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. Machinery $205.00. Complete punts $375.00. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 H.P.

Adams Launch and Engine Co.
Penetang, Ont.

Richest and Purest Milk

from the choicest dairy sections of Canada. From cows properly fed and cared for.

Borden's

Peerless Brand

Evaporated Milk

Dilute with water to desired consistency and use same as "fresh" milk.

Convenient Economical Safe

Borden's Condensed Milk Co.

Originators of Condensed Milk and Largest Manufacturers of Milk Products in the World.

"LEADERS OF QUALITY" ESTABLISHED 1857

Wm. H. Dunn, Agent - - MONTREAL

Everything in Spruce

Dressed and in the Rough

Campbell - MacLaurin Lumber Co.

Limited

Board of Trade Building, MONTREAL

Timber Estimates
Logging Maps
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Forest Engineers

CLARK & LYFORD,
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Vancouver

LYFORD, CLARK & LYFORD
26 Board of Trade Bldg.,
Montreal

EDGINGS

Ontario

The planing mill of the Jones Hardware Company. Limited, at Lindsay, was recently destroyed by fire.

Taylor, Scott & Co., of Toronto, have purchased the wood-working establishment of Major Wooldridge at Palmerston, Ont.

The Naylor-Osborne Company Limited, has been incorporated with a capital of $60,000 to carry on a general lumber business. The head office will be at Essex, Ont.

The saw-mill of Graves-Bigwood & Co. Ltd., at Byng Inlet, Ont., was destroyed by fire recently, at an estimated loss of $20,000. The company will rebuild immediately.

The Spanish River Pulp & Paper Company have declared a half-yearly dividend of 3½ per cent. on the preferred stock. In future the preferred dividend will be on a quarterly basis.

Mr. Walter Knight, member of the big lumber firm of Knight Bros. Ltd.. of Burk's Falls, Ont., died from injuries sustained when his horse became frightened and threw him into a ditch.

The Smart Turner Machine Company, Limited, Hamilton, have recently received an order from Geo. Frid & Sons, for a duplex pump and also one from the Corporation of Dophin, Ont., for an Underwriters' Fire Pump.

The Minnesota & Ontario Power Company are beginning the construction of a $100,000 paper mill plant at Fort Frances. It will have a capacity of from 100 to 140 tons a day. They expect to have the mill in operation within a year.

The Montrose Paper Mills Company of Thorold, which recently amalgamated with the St. Lawrence Paper Mills Company have let the contract for the construction of new buildings which will cost over a million dollars, to Mr. J. M. Tremble of Niagara Falls.

The Ontario Government has been advertising the Abitibi Limits for sale on condition that a pulp and paper mill is erected. If this project is undertaken it should go far to develop that part of the country. The industry would draw population, and the Government would not have to worry over settlers or settlement of the lands so long as it continued its railway building north to James Bay.

At the last annual meeting of the Wood Products Company of Canada, Limited, held recently in Toronto, Montreal interests took over control, with the result that the management will be removed to that city. The following board was elected: Messrs. J. W. McConnell, president; Thos. Hodgson, vice-president; Nathaniel Currie, Col. Burland, Arthur Lyman, Dr. Milton Hersey, and F. J. Knox, Board of Directors.

The T. Beck Manufacturing Company, of Penetanguishene, have begun clearing away the debris caused by the recent fire. and will be starting in at once to rebuild their plant on the most modern lines. They were fortunate enough to just lose one sawmill, and are preparing to run the remaining one double shifts and thus make up for the loss, and in this way expect to cut as much as first intended. As no lumber was touched by the fire they are able to fill all their orders and business with them is practically uninterrupted.

Under agreement with the provincial government, Mr. Willis K. Jackson, a wealthy lumber merchant of Buffalo, and his associates, are to pay $98,364 for as many acres of land in the townships of Haggart and Kendry in Northern Ontario. They will clear the land, establish saw-mills and bring settlers into the district. The purchasers must commence within ninety days from the date of the agreement, and complete with all reasonable dispatch, a large permanent saw-mill, planing mill, sash and door mill, and all the necessary houses in connection therewith. The plants and buildings must cost not less than $70,000. To guard against the purchasers cutting down timber in advance of the work of clearing, permits must be secured from the Government before any cutting can be done.

Eastern Canada

John Hunter is offering his mill at Ormstown, Que., for sale.

The saw mill of T. Lemay at Megantic, Que., was burned recently.

The sawmill stock of C. W. Carbonneau, of Sorel, Que., is reported sold.

Mr. D. H. Pennington. of Inverness, P.Q., has sold his extensive lumber interests.

Rivard & Lynch have registered to carry on a lumber trading business in New Brunswick.

The T. O. Viall Lumber Company Limited have been organized. Their headquarters will be at Port Daniel, Que.

The woodworking factory at Fairville, N.B., formerly operated by Atkins Bros.. has been purchased by W. E. Lawton.

Dartnell Limited, has been incorporated with a capital of $40,000. They will deal in all kinds of builders' supplies. The head office will be in Montreal.

The sash and door factory of J. H. Lebeuf at St. Pierre, Que., was completely destroyed by fire. It will be rebuilt shortly, and new machinery will be required.

The Phoenix Mills owned by John A. Morrison at Fredericton, N.B., started operations on June 17th. They have a sufficient supply of logs on hand to keep them in operation until late in the fall.

Mr. M. J. O'Brien of Renfrew, has acquired a large tract of timber limits near Quinze Lake and Lake Expanse. Que. It is understood that he will build a 400-ton per day pulp mill on the property.

The Carritte-Patterson Co., Halifax, N.S., intend erecting a saw-mill 200 x 150 ft.. two warehouses 285 x 24 ft., and 60 x 40 ft., respectively, and a boiler house 50 x 35 ft. They will install a 400 h.p. boiler and engine.

A report from Lake Megantic, P.Q., states that the sawmill belonging to Mr. Telesphore Lemay has been burned to the ground and the entire con-

tents destroyed. The damage amounts to $12,000, with insurance of only $1,500.

Sir Rodolphe Forget is credited with a scheme to merge the Wayagamac Pulp & Paper Company, the Eastern Canada Pulp & Paper Company, the Spanish River and Ontario Pulp Companies and possibly one or two of the older established mills.

H. Boulay, M.P., Sayabec, P.Q., is arranging to erect a small spruce and shingle mill about eight miles from Sayabec, where he already operates a small mill. The new mill will contain one shingle machine and will cut about 200,000 feet of spruce annually.

Mr. William Rutherford, of William Rutherford Sons Company, Limited; Mr. Geo. Esplin, of G. & J. Esplin; and Mr. W. J. Sadler, of Sadler & Haworth, have been elected members of the executive committee of the Montreal branch of the Canadian Manufacturers' Association.

The management of the Wood Products Company of Canada has been removed from Toronto to Montreal. The following board have been elected: Messrs. J. W. McConnell, president; Thomas Hodgson, vice-president; Nathaniel Curry, Colonel Burland, Arthur Lyman, Dr. Milton Hersey, and F. J. Knox.

Between sixty and seventy million feet of logs were jammed last month within a distance of three-quarters of a mile on the Miramichi River in New Brunswick. In some places the logs were piled twenty feet above the level of the water. The approximate value of the timber in the jam was $60,000. Dynamite and heavy rains broke the jam eventually.

In an official statement of the East Canada Pulp & Paper Company, of Nairns Falls, P.Q., it is said that the plant, which has just commenced working, has been turning out between 105 and 110 tons of pulp daily. The output has been sold for a year ahead. The statement is also made that they have just refused a United States contract for the immediate delivery of 20,000 tons of pulp.

The directors of the St. John River Log Driving Company will place a boom at Six Mile Island above Grand Falls. The object of this is to catch the logs for the down river mills, which are late in coming out of the VanBuren booms and which heretofore have been scattered along the river during the summer. It is stated there are now over one hundred million feet of lumber in the boom.

The officials of the Eastern Canada Pulp & Paper Company have issued their first statement on the initial operations of the new plant which was set in motion at Murray Bay on June 1st last. It shows that the mills have exceeded earlier expectations in the matter of output. The first day's results were 42 tons output of pulp, while on June 18th the plant turned out between 105 and 110 tons, which is at least ten tons a day in excess of the original estimate of the capacity of the mill.

Western Canada

Ford & Company will start a sash and door plant at Weyburn, Sask.

D. Hamilton has started a woodworking business at Wapella, Sask.

Wm. Cook, the prominent saw-mill owner of Mount Lehman, B.C., died recently.

The North Star Lumber Company of Birch Hills, B.C., has been incorporated.

S. A. Arbuckle, lumber dealer at Wellwood, Man., has been succeeded by Wm. Bruce.

The Doak Lumber & Manufacturing Company is building a planing mill at Saskatoon, Sask.

The Finger Lumber Company of Le Pas, Man., intend enlarging their plant so as to double its capacity.

The lumber mill owned by J. B. Winlaw at Winlaw, B.C., was destroyed by fire on June 18th. The loss will be about $40,000.

The Upper Fraser country of British Columbia has been devastated between Fort George and Tete Jaune Cache by forest fires.

The Far West Lumber Company Limited has been incorporated in British Columbia with a capital of $10,000. The head office will be at Victoria.

The Yale Columbia Saw Mill of Nelson, B.C., which was destroyed by fire last March with a loss of more than $70,000 will be rebuilt in the near future.

Red Wing Lumber & Supply Company, Limited, has been incorporated in British Columbia with a capital of $30,000. The head office will be at Victoria.

The Seattle Cedar Lumber Manufacturing Company has registered in British Columbia. The amount of capital is $85.000 and the head office will be in Victoria.

The Stone Lumber & Shingle Co. Ltd., have been incorporated in British Columbia with a capital of $10,000. The head will be at Pine Grove, British Columbia.

French Canadian Timber, Limited, has been incorporated in the Province of British Columbia with a capital of $1,000,000. The head office will be situated in the city of Vancouver.

The Dominion Equipment & Supply Company has been incorporated in British Columbia with a capital of $100,000. It will manufacture and deal in all kinds of timber, lumber and builders' supplies. The head office will be at Vancouver, B.C.

The next convention of the Canadian Forestry Association will be held in Victoria, on September 4, 5 and 6, on the invitation of the Government of the province. Premier McBride is enthusiastically forwarding the project and it is expected to be one of the largest conventions of the kind ever held in Western Canada.

The sash and door and planing mill of Brown & Rutherford, Winnipeg, which was recently destroyed by fire is being rebuilt. The temporary factory is now about completed. The building will be used as a warehouse when the permanent mill structure is completed.

The Pacific Machinery & Supply Company Limited, has been organized in British Columbia with a capital of $30,000. The head office will be at Vancouver. Their charter permits of their engaging in the lumber business.

The Barnhart Log Loader

has been in successful operation in all parts of the country for twenty years and never caused a complaint. We are now manufacturing a new Barnhart Loader known as **Model "12,"** which is specially designed for use in very heavy timber. This loader is built on the same lines as the old Barnhart Loader now known as Model "10" and which we still continue to manufacture. We are operating lumbermen, producing 200,000,000 feet of lumber per annum and we use the Barnhart Loader exclusively. Could we afford to do so if it were not the best? Write us for prices.

Goodyear Lumber Company, BUFFALO, N. Y.

Dry Mill Cull and Box Lumber Becoming Scarce

These grades are being rapidly picked up. We have still a nice stock of last season's cut.

White Pine *for the* Wholesale Trade

We advise you to write, wire, or 'phone without delay and get the benefit of our low prices.

Thos. Mackarell & Co.

Ottawa
49 Metcalfe Street

Montreal
Canadian Express Bldg.

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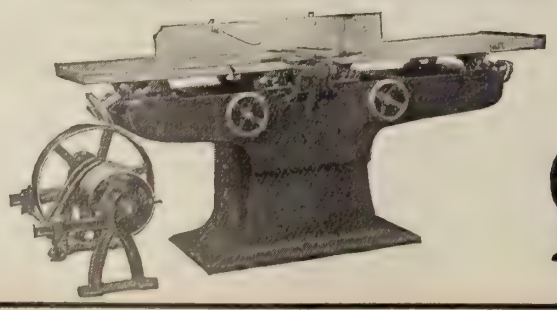
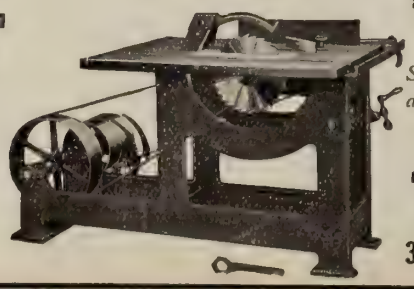
Silver's New Wood-working Machines are Newest, most improved tools on the market. The cuts give a slight suggestion of their neatness of design and construction. In rigidity, in ease and convenience of operation, in moderate price, they beat all others to a frazzle.

Silver's Machines are high-pressure machines
They will do your work to the limit and do it well





JOINTERS—8, 12, 16, 20 and 24-inch
BAND SAWS—20, 26, 32, and 36-inch
SWING SAWS—6½, 7, 7½ and 8-foot
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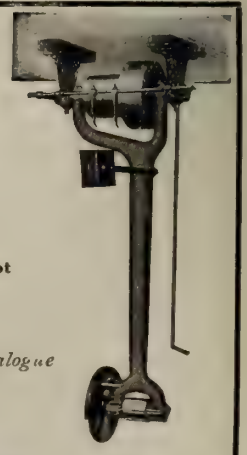
Send for 1911 Machinery Catalogue and Special Prices at once.



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Pole Tram Car

Pole Tram Car

Indespensable to every saw mill. It runs on poles from 6 to 10 inches in diameter and the wheels are concave.

This method of conveying logs, pulpwood, or coal is undoubtedly the best and the cheapest that jobbers and mill-men can use. It can be used to great advantage on low and marshy ground.

We would appreciate the opportunity of furnishing you with further particulars.

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The Cheapest Roofing

J-M Asbestos Roofing is lower in first cost than shingles, tin and slate and cheaper than all other roofings when cost per year is considered.

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J-M Asbestos Roofing

consists of layer on layer of Asbestos (rock) Felt securely cemented together with Trinidad Lake Asphalt. This makes a ready roofing which is literally a pliable stone—with the everlasting qualities of stone.

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This roofing is in good condition today on many buildings after more than a quarter century of service. J-M Asbestos Roofing can be used on any type of building.

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Manufacturers of Asbestos and Magnesia Products — ASBESTOS — Asbestos Roofings, Packings, Electrical Supplies, Etc.

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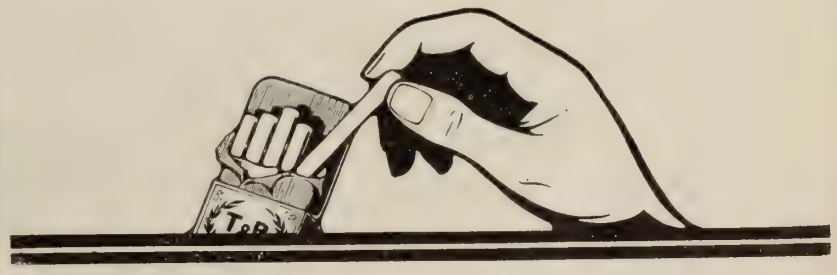


From tip to tip every Tuckett's Cigarette is composed of mellow sun-dried leaf tobacco. All but the finest stock is rejected — only A1 quality gets the O. K. of the Tuckett buyers. Expert cigarette makers blend the pure leaf in scrupulously clean sunlit rooms. Result — a thoroughly enjoyable and satisfying smoke from "light up" to butt.

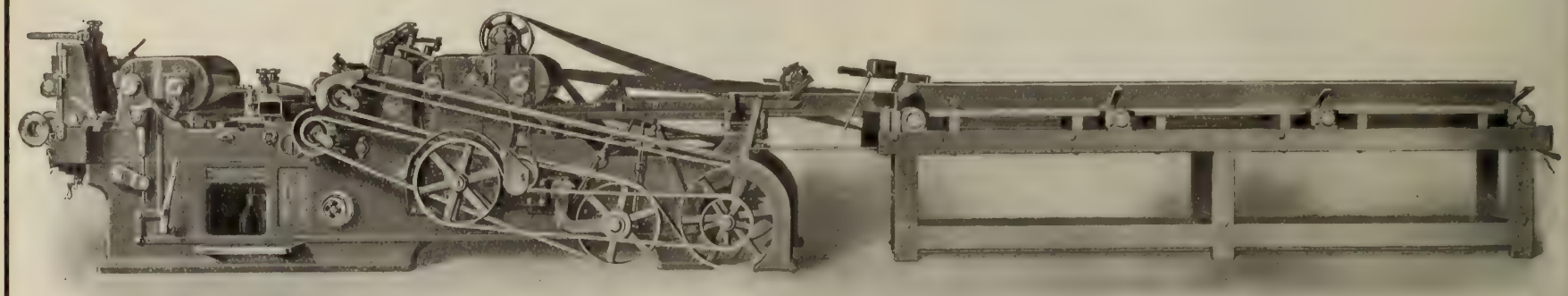
Tuckett's CIGARETTES

THREE VARIETIES

Tuckett's Special Turkish	15c. for 10.
Tuckett's Club Virginias	15c. for 10
Tuckett's T. & B.	10c. for 10.

EVENTUALLY ONE OF "THE PLANERS OF WOODS" WHY NOT NOW?

It makes no difference whether your stock is knotty or cross grained, you obtain the highest grade production at fastest rates of feed. With our Automatic Feeding Table any feeder operating one of "The Planers of Woods" makes the output equal the machine's rating. Send for our No. 400 series Matcher Booklet. It tells you about it.



(Front View) WOODS No. 404 HIGH SPEED Planer and Matcher with an AUTOMATIC FEEDING TABLE—CAPACITY 200 to 300 LINEAL FEET PER MINUTE

Feeding table patent applied for

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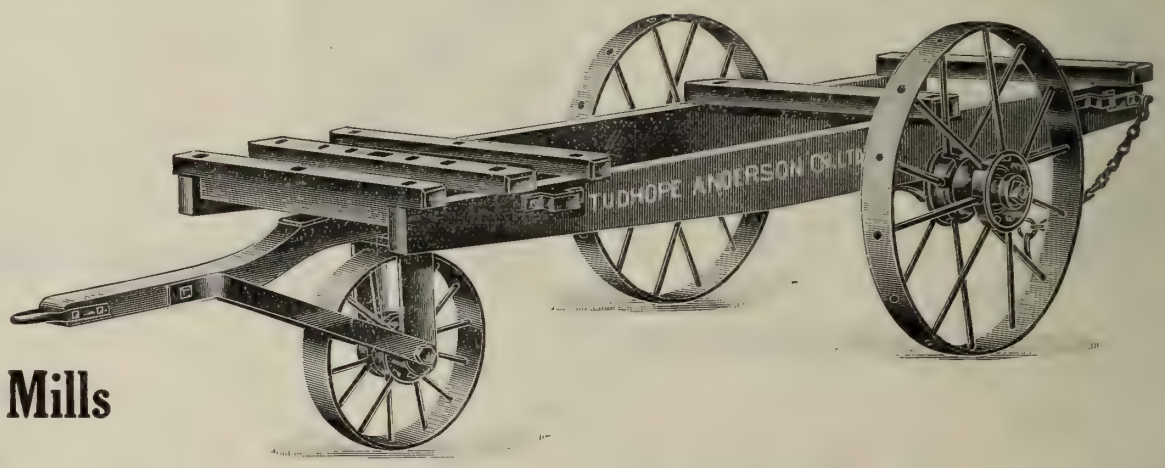
Three Wheel Lumber Cart

with Wide Tire Steel Wheels

Used in trains or singly for platform work.



Dump Carts for Saw Mills

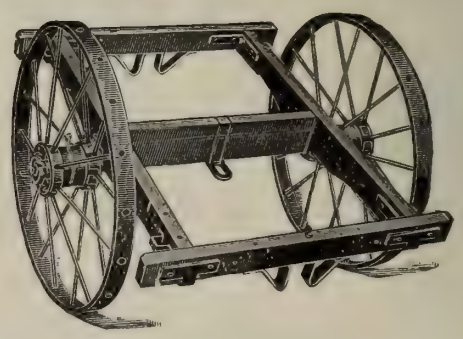
with Wide Tire Steel Wheels

In ½, ¾ and 1 Cord Capacity—extra strong of thoroughly seasoned hardwood and bolted throughout.

Detachable Lumber Trucks

with Wide Tire Steel Wheels

for Saw Mills, Planing Mills, Lumber Yards, etc.



The Tudhope-Anderson Co., Limited

Successors to TUDHOPE-KNOX CO., LIMITED

ORILLIA - - ONT.

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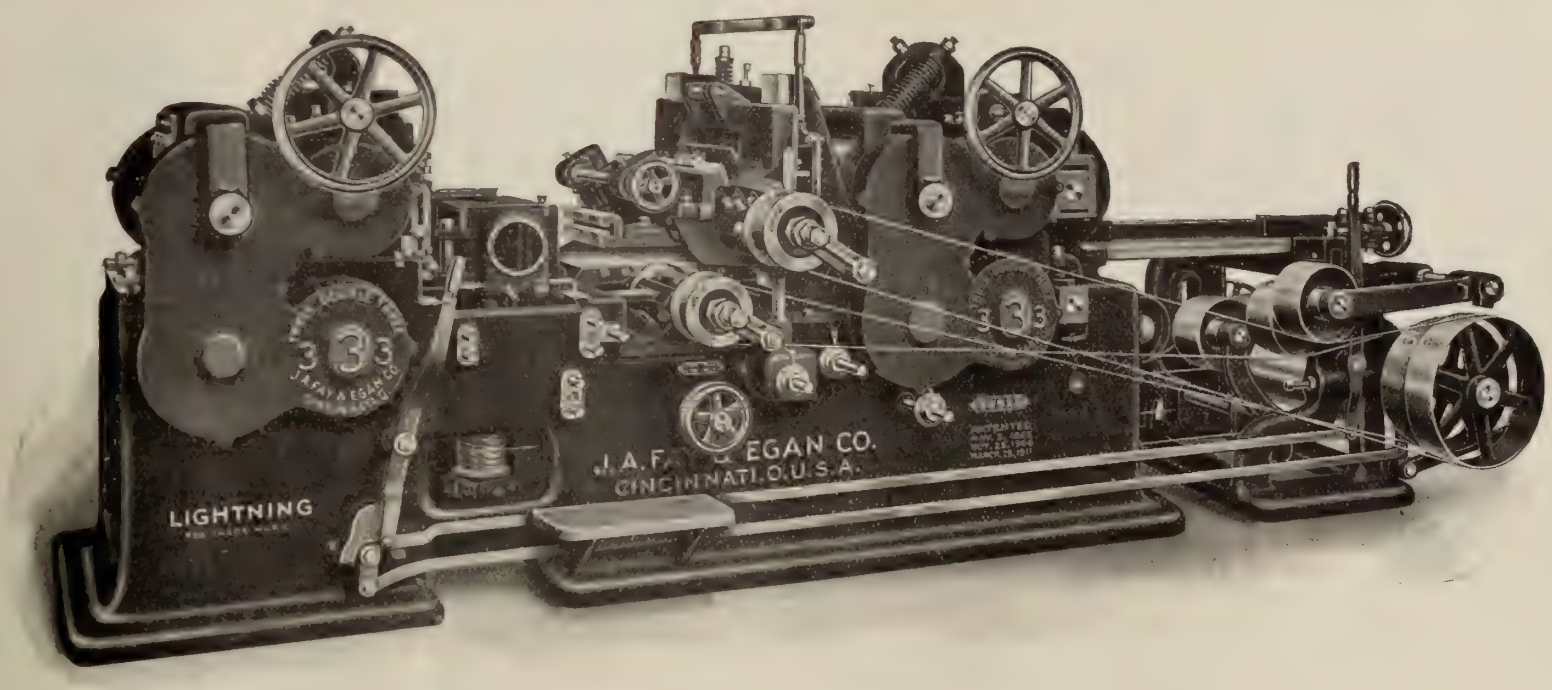

This is the FAY-EGAN "LIGHTNING" No. 333—the Matcher that produces the highest grades at the lowest cost per thousand feet—ten reasons for its success are—

1. The heavy frame cast in one piece—the countershaft, too, is cast in one piece separate from the machine.
2. Every gear cut from the solid and runs in grease.
3. Sight feed lubricators for cylinders and side heads—compression grease cups for all gears.
4. Feed rolls are 12″ in diameter, and powerfully geared.
5. You can get at every part and make every adjustment on this machine from the outside.
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7. Cylinders are round, with six air-hardened, thin steel knives—top cylinder driven by double belts direct from countershaft—bottom cylinder also driven by double belts direct from countershaft (not by friction).
8. Each cylinder has a jointing attachment always on and ready for use.
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10. A Profiler or Molding Attachment can be put on and can be set up and changed as quickly as any Molder—the bits can be jointed without removing the head.

We may be prejudiced—the mills that are getting the benefit of this Matcher are not—write us for catalog and we'll tell you where you can see one in operation.

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Woodworking Machinery. The "Lightning" Line. Established 1830.

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CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$60 00	65 00
1¼ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better..	67 00	72 00
1½-in. No. 2 C & B	50 00	52 00
2-in. No. 2 cuts and better ..	56 00	60 00
1½-in. No. 1, 2 and 3 Cuts ..	48 00	50 00
2-in. No. 1, 2 and 3 Cuts	50 00	52 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	23 00	25 00
1 x 6 common and dressing..	26 00	28 00
1 x 8 common and dressing ..	27 00	29 00
1 x 10 common and dressing ..	30 00	32 00
1 x 12 common and dressing..	39 00	41 00
1x10 and 12 mill cull stocks ..	21 00	22 00
1-in. mill cull sidings		18 50
2 x 10 common	27 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	22 50	23 50
1 x 10 inch box and common.	24 00	25 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	24 00	26 00
1-in. mill run shorts		18 00
1-in. dead cull sidings		14 00
1¼-in. flooring		28 00
1-in. mill run Norway		22 00
2-in. mill run Norway		25 00
Norway, c and cf 1-in.	33 00	34 00
Norway, c and cf 1¼-in.	35 00	38 00
Norway, c and cf 2-in.	33 00	35 00
Spruce mill run	21 00	22 00
Spruce mill culls 15 00		16 00
Clear in. B.C. cedar, kiln dried	55 50	65 50
Douglas Fir		
Dimension Timber up to 32 feet:		
8, 10x10, 10x12, 1x14, 12x12, 12x014, 14x14, 14x16.....		34 00
8x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 14x18, 16x18 18x18, and 20x20		34 50
6x14, 8x14, 12x18, 18x20		35 00
6x16, 8x16, 10x18, 12r20, 14x20, anh 16x20		35 00
10 x 20		36 00
6 x 18, 8 x 18		36 50
6 x 20, 8 x 20		37 50
Lengths over 32 ft. take the following advances: 33 to 35 ft., 50c.; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5.		
Fir flooring, eoge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		45 10
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 10
1½-in. No. 1 4-ft. pine lath..		4 50
1½-in. No. 2 4-ft. lath		4 00
1½-in. 32-in. pine		1 60
1½-in. No. 1 4-ft. hemlock lath		3 75
1½-in. mill run hemlock lath.		3 50
X pine or cedar shingles		1 05
XXpine or cedar shingles ...		2 25
XXX pine or cedar shingles ..		3 20
XX B. C. cedar shingles		2 40
XXX 6 butts to 2-in.		3 30
XXXX 6 to 23-16-in.		3 52
XXXXX		3 75
Hemlock No. 1:		
1x4 & 5-in. x 9 to 16 ft. ...		14 50
1 x 6-in. x 9 to 16-ft.		18 00
1 x 8-in. x 9 to 16-ft.		19 00
1 x 10 and 12 in. x 9 to 16 ft.		21 00
1x7, 9 and 11 in. x 9 to 16-ft.		17 50
1-in. No. 2, 6-ft. to 16-ft. 2x4 to 12-in., 6-ft. to 16-ft.		12 00
2x4 to 12-in., 12 and 14 ft. ..		18 50
2x4 to 12-in., 18 ft.		21 50
2x4 to 12-in. 20 ft.		23 50
2 x 4 to 12-in., 22 ft.		25 50
2 x 4 to 12-in., 24 ft.		28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		13 50

Hardwoods—Per M. Feet, Car Lots

Ash white, 1sts and 2nds, 1½ and 2-in.	55 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	48 00
Ash, brown, common and better	37 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	55 00
Birch, 1sts and 2nds, 4/4	35 00
Birch, No. 1, com. and bet., 4/4	30 00
Birch, 1sts and 2nds, 6/4 and 8/4 ..	38 00
Birch, 1st and 2nds, 10/4 and 12/4 ..	42 00
Birch, 1sts and 2nds, 16/4	44 00
Basswood, 1sts and 2nds, 4/4	38 00
Basswood, No. 1, com. and bet., 4/4.	30 00
Basswood, No. 2 and 3, common ...	16 00
Basswood, 6/4 and 8/4, 1sts and 2nds	40 00
Basswood, 5/4 and 8/4, com. & bet...	35 00
Basswood, No. 2 common and better.	25 50
Soft elm, 1sts and 2nds, 4/4	35 00
Soft elm, No. 1 com. and bet., 4/4 ..	29 00
Soft elm, No. 2 and 3, common	15 00
Soft elm, 6/4 and 8/4 1 and 2	38 00
Soft elm, 3-in. 1sts and 2nds	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4 ..	50 00
Rock elem, No. 2 com. & bet. 6/4 & 8/4	35 00
Soft maple, 1sts and 2nds, 4/4 31	00
Soft maple, com. and better, 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	34 00
Hard maple, 1sts and 2nds, 4/4	34 00
Hard maple, common and better, 4/4.	27 00
Hard maple, 12/4 & 16/4, 1sts & 2nds.	43 00
Red oak, plain, 1sts & 2nds, 4/4...	55 00
Red oak, plain, 1sts & 2nds, 6/4 & 8/4	60 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	65 00
White oak, plain, 1sts and 2nds, 4/4..	55 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	60 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	70 00
White oak, ¼ cut, 1sts & 2nds, 4/4..	83 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	87 00
White oak, ¼ cut No. 1 common ...	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up $53	00	55 00
1¼-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up ..	40 00	45 00
Pine good strips:		
1-in.	40 00	44 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	50 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	38 00	40 00
1-in. x 4-in. to 6-in.	30 00	35 00
1¼-in. and 1½-in.	45 00	50 00
2-in.	48 00	52 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings ..	33 00	35 00
Pine, No. 1 dressing strips ..	26 00	31 00
Pine, No. 1 dressing shorts ..	22 00	26 00
Pine. 8 s.c. and better, 12 ft. to 16 ft.	23 00	24 00
Pine, 7 up s. c. siding 1-in....	22 00	25 00
Pine s. c. sidings 1½ & 2-in...	26 00	30 00
Pine, s. c. strips 1-in.	17 00	19 50
1¼, 1½ and 2-in.	22 00	24 00
Pine, s.c. shorts, 1 x 4	20 00	21 00
Pine, s.c. and bet. 1x5	21 00	22 00
Pine, s.c. and bet. 1x6	23 50	25 00
Pine, box boards:		
1"x4" and up 6'-11'	13 00	14 00
1"x3" to 6", 12'-16'	15 00	16 00
1"x7" and up 12'-16' 16	00	17 00
Pine shorts 6'-11' 1"x10"....	20 00	21 00
1x8 and 9 No. 1 barn	25 00	27 00
O. culls r & w p	10 00	12 00
Red Pine log run,		
mill culls out, 1-in.	14 00	16 00
mill culls out, 1¼-in.	16 00	18 00
mill culls out, 1½-in.	17 00	19 00
Mill run Spruce:		
1"x 4" and up, 6'-11	14 00	15 00
1"x4" and up, 12'-16'	16 00	17 50
1"x9"-10", & up, 12'-16'...	18 00	19 00
1¼"x7" 8-9" & up, 12'-16'	18 00	20 00
1¼"x10" and up, 12'-16' ..19	00	20 00
1½" & 2"x12" & up, 12'-16'	24 00	25 00
Spruce 1-in. clear (fine dressing and B)	24 00	27 00
Hemlock 1-in. cull	10 00	12 00
Hemlock 1-in. log run	13 00	14 50
Hemlock 2x4, 6, 8, 10, 12/16'	14 00	16 50
Tamarac	13 00	15 00
Basswood log run, dead culls out	20 00	22 00
Basswood log run mill culls out	24 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
Pine, s.c. and better, 1x7	21 50	23 00
Pine, sc. and better, 1x8 23	00	25 00
Pine, s.c. and better, 1x9	23 00	25 00
Pine, s.c. and better, 1x10 ...	25 50	27 00
1 x 10 No. 1 barn	30 00	33 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	20 00	22 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	14 00	15 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	11 00	13 00
Lath per M:		
No. 1 white pine 1⅜-in. x 4-ft.	3 75	4 00
No. 2 White Pine	3 00	3 25
Mill run white pine	3 25	3 50
Spruce, mill run 1½-in.	2 75	3 00
Red pine mill run	2 75	3 00
Tamarac mill run	1 25	2 00
Basswood, mill run	2 00	2 50
Hemlock, mill run	1 75	2 25
32-in. lath	1 25	1 75
Pine Shingles		
xxxx, 18-in.	3 50	4 00
Clear butt 18-in.	2 50	3 25
xx, ...	1 50	1 75
White Clear Shingles:		
xxxx, 18-in.	4 00	4 25
Clear butt, 18-in.	2 50	3 00
18-in. xx	1 60	1 85
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

	cts.	
First class Ottawa waney, 18-in. average, according to lineal	85	90

Oak—Michigan and Ohio

By the dram, according to average and quality	62	67

Elm

By the dram, according to average and quality, 40 to 45 feet	80	83
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash

13 inches and up, according to average and quality 25 30
Average 16 inch 30 40

Birch

14 inch	18	20
15 inch	22	24
16 inch	26	28
18 inch	32	30

Quebec Spruce Deals

	Per M.	
12 feet and up x 3 x 9 and up	18 00	19 00
Oddments	15 00	16 00
Boards, 1 and 2 in.	15 00	16 00

Birch Planks

1 to 4 in.	16 00	17 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	54 00
1 in., 8 in. and up wide	67 00
1¼ and 1½ in. and up wide	69 00
2 in. and up wide	72 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	67 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	47 00
1¼ in., 8-in. and up wide	57 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½-in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	48 00
2½, 3 and 4 in., 6-in. and up wide 62	00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide...	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide 43	00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	22 00
1-in. x 5-in.	24 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	30 00
1-in. x 12-in.	35 00
1-in. x 13-in. and up	35 00
1¼, 1½ and 2-in.	32 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch 21	00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	20 00	22 00
No. 2, 1¼, 1½, 2-in.	17 00	21 00

Mill Culls

Mill run culls, 1-in.	16 00
1, 1¼, 1½ and 2-in.	18 00
No. 2 14	00 15 00

Lath

No. 1, 32-in. pine	1 50
No. 2, 48-in. pine	3 75
No. 3, 48-in. pine	3 00
No. 1, 48-in. pine	4 25
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft	8 ft	10 ft	14x16 ft
2 x 4	14 00	17 00	20 50	18 50
2 x 6	16 50	17 00	20 50	18 50
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch $18	50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Dimensions, S. 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
.....	27 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine mixed widths	20 00
No. 4 common pine, mixed widths ..	14 50
No. 5 common pine, mixed widths ..	10 00

SHINGLES

XXX B. C. Cedar	$2 90
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00

(Continued on page 68)

RUBBER GOODS FOR LUMBERMEN

Belting—Our long experience in the making of Rubber Belts enables us to specialize on this line. "Monarch," "Red Strip" and "Lion" are our leading brands for power transmission. (Write for Booklet B-1.)

Packings—"Redstone" High Pressure Sheet Packing has proved by test that it will outlast any other similar packing on the market. We make Spiral and Ring Packings, etc., that are equally reliable. (Booklet P-1.)

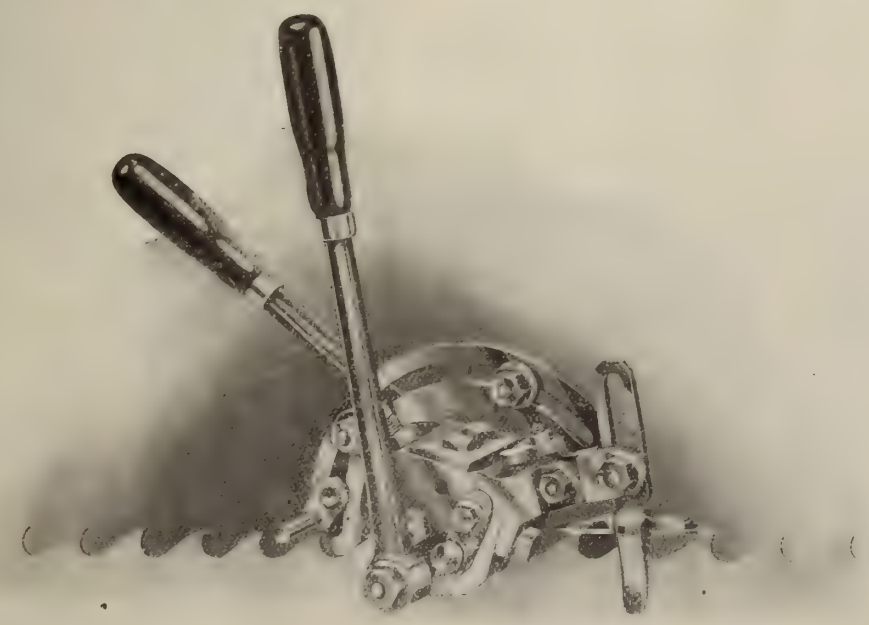
Hose—for Steam, Water, etc., etc., in various grades, made especially to give satisfactory and economical service under different conditions. (Booklet H-1.)

Fire Hose—One or more of our twenty brands of Fire Hose will be found, not only in the best equipped Factories, Mills, etc., but in almost every Fire Department in the Dominion. (Booklet H-1.)

The Gutta Percha & Rubber Mfg. Co. of Toronto, Limited

TORONTO MONTREAL HALIFAX WINNIPEG CALGARY VANCOUVER

Hanchett Band Saw Swage



WE have been right here "sawing wood" for nearly 20 years. The number of swages turned out each year is greater than the year before. Let us send you one on trial. If it don't please you send it back at our expense. It won't cost you a cent to try it. Our new spring brackets and die lever stops fit all Hanchett Swages. Ask for catalog No. 5—just out.

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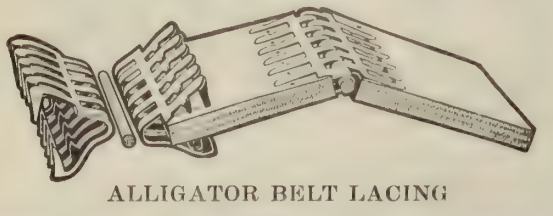
HANCHETT SWAGE WORKS, Big Rapids, Mich. U.S.A.

"LIMESTONE" Wood Split Pulleys

The Strongest Wood Pulley Made. NAILED and GLUED

We carry the largest stock of Wood Pulleys in the Country.



ALLIGATOR BELT LACING

Also Lukenheimer Valves, Lubricating Oils and Greases, Packings, Hose, Paints, etc.

Rush Orders Promptly Filled. **Belting in Stock 1-in. to 20-in.**

LARGE BELTS A SPECIALTY

Crescent Oil Co., Hamilton, Ontario

Are You Interested in British Columbia Trade?

The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.

There is undoubtedly a big market for Mill Equipment of all kinds. Let us Demonstrate our Advertising service. We please others, we can please you.

Western Lumberman

Crowe & Wilson Chambers
VANCOUVER, B. C.
Branch at Winnipeg

Are your horses of use to you?

This seems an absurd question—and the answer is always **"Of course they are"**—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	$4.50 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	15.00 doz.

Johnson's Horse Liniment, No. 2 (an oil liniment)

1 gal. jugs (Imperial)	3.00 gal.
1 lb. bottles	6.00 doz.
2 lb. bottles	11.00 doz.

Johnson's Horse Colic Remedy

A sure and speedy cure for all kinds of Colic

1 gal jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz,

Johnson's Veterinary Healing Ointment (Gall Cure)

2 lb. tins	2.25 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 doz.

Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, Collingwood, Ont.

Lumber Camp Ranges and Heaters

All Kinds of Stoves for Large or Small Camps

Our stoves are specially designed to meet all requirements of camp work.

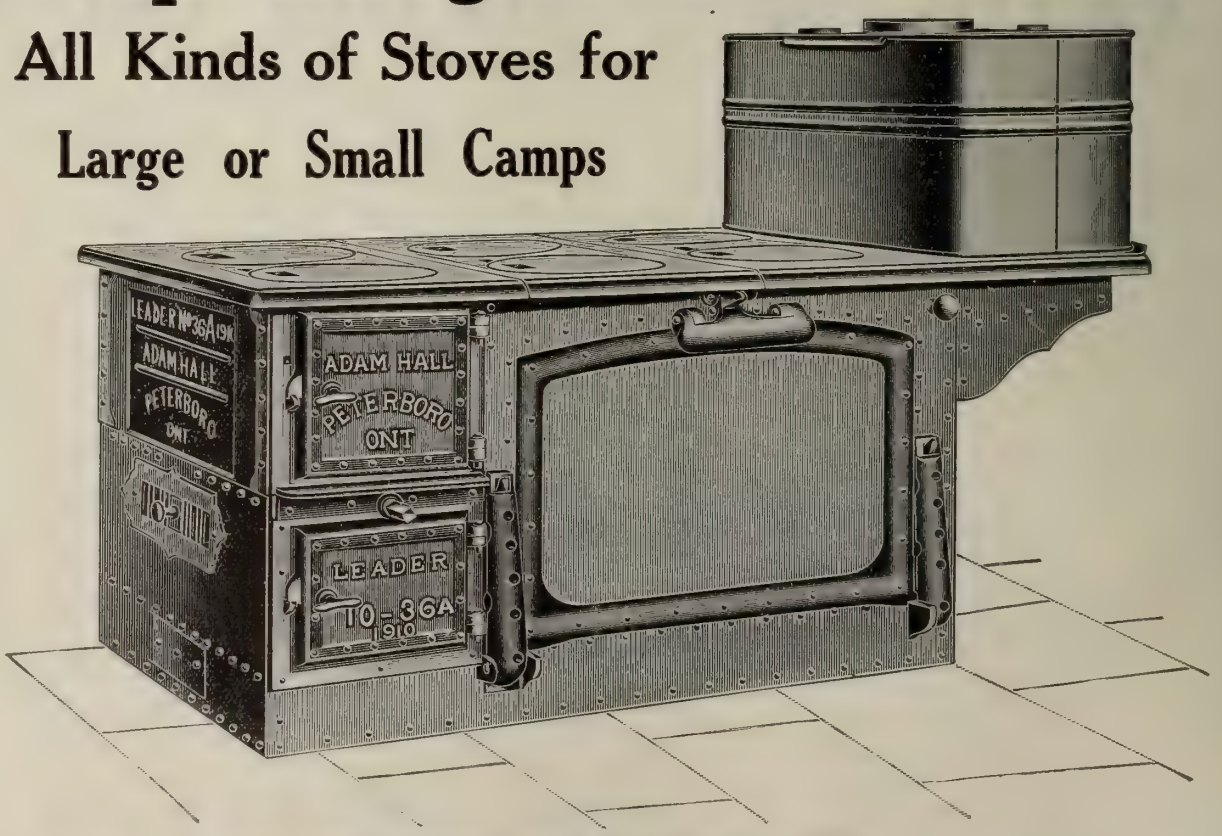
We know exactly what is necessary and desirable in this class of stove.

We put into all our stoves the best of material and workmanship coupled with the best of expert experience.

The 'Leader Range' for coal and wood, shown in this cut is specially adapted to Lumberman Camps, Boarding Houses, Hotels and Railroad Construction Camp Work. We also make this Range with side hinge doors.

It is large, heavy and strongly built. Has good oven space and large heating surface. When a good, solid, reliable stove is wanted the 'Leader' will give satisfaction.

Write for our catalogue.



NO. 10-36A SIX HOLE LEADER RANGE AND RESERVOIR

ADAM HALL, Limited - Peterborough, Ontario

Manufacturers of Ranges, Heaters, etc., for Lumber Camps, Hotels, and Railway Construction

ENGINES and BOILERS

OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

We cater specially to the lumbering industries

Write for Prices and Information

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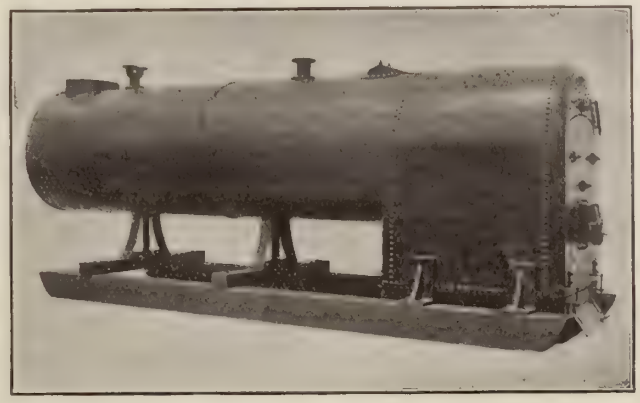

Locomotive Boiler on Skids

International

Preparations for Horses are all sold on a Spot Cash Guarantee

Let us figure on furnishing you the following supplies for the coming season.

International Stock Food
We guarantee that your horses will do more work and keep in better order on less feed if they get International regularly.

International Silver Pine Healing Oil
Especially recommended for Sores, Bruises, Kicks, Inflammation and all flesh wounds.

International Worm Powder
Will quickly expel all kinds of worms.

International Distemper Cure
For Coughs, Colds, and Distemper.

International Colic Cure
Guaranteed to cure Colic in ten minutes.

International Compound Absorbent
Greatest Curb cure on Earth.

International Gall Cure
Cures while horses work or rest.

International Foot Remedy
Cures Foot diseases, keeps the hoof soft, elastic and tough

International Harness Soap
Gives new life to old harness.

All our goods are guaranteed to give satisfaction.

Write for Special Prices

International Stock Food Co., Limited

Toronto, Ont.

Building Reports

When you know definitely, clearly and in detail just who is in the market for your product, you are in a fair way to land the order.

MacLean Daily Reports will introduce you to buyers in every Province every day at a trifling cost when the results are considered.

May we submit our proposition?

A POSTAL WILL BRING DETAILS

MacLean Daily Reports, Limited

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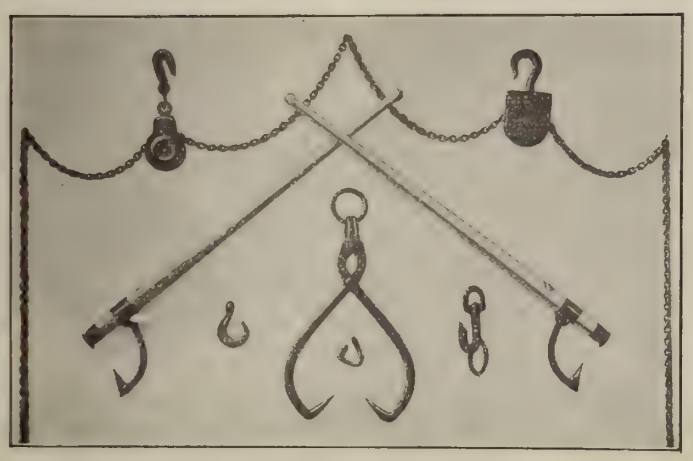
also Montreal, Winnipeg and Vancouver.



When ordering from your Jobber specify

Pink's Lumbering Tools

and if they cannot supply them order direct, and you will get the best tool made

The Thomas Pink Co. Limited

PEMBROKE, Ont., Canada

Manufacturers of the best line of Lumbering Tools in Canada

CURRENT LUMBER PRICES—Continued

No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00
No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	46 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	30 00
No. 2 Barn 1 x 10	32 00
No. 3 Barn 1 x 6 and 8	23 00
No. 3 Barn 1 x 10	25 00
Box 1 x 6 and up	22 00
Box 1 x 10	23 00
Box 1 x 12	25 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

White Ash		
1st and 2nd, 1 inch	40 00	42 00
1¼ to 2 inch	44 00	46 00
2½ to 4 inch	48 00	54 00
Strips	22 00	24 00
Common and culls	14 00	22 00
Black and Brown		
1st and 2nd, 6 inch up	40 00	42 00
Common good culls	14 00	20 00
1st and 2nd 6 inch and up, red	40 00	42 00
1st & 2nd, white, 6 in. & up	30 00	32 00
Common and good culls	16 00	18 00
Elm		
1st and 2nd, rock, 6 in. and up	34 00	38 00
Common and culls	16 00	20 00
1st and 2nd, soft, 6 in. and up	28 00	32 00
Common and culls	13 00	18 00
Maple		
1st and 2nd hand	26 00	28 00
Common and culls	14 00	22 00
1st and 2nd, soft	26 00	28 00
Common and culls	14 00	22 00

BOSTON, MASS.

White pine uppers, 1 to 2 in.	$99 00	100 00
Selects, 1 to 2 inch		90 00
Fine common, 1 in.		72 00
Fine common, 1¼ to 2 in.	74 00	75 00
No. 1 Cuts 1 in.		45 00
No. 1 Cuts 1¼ to 2 in.	58 00	60 00
No. 2 Cuts, 1 in.	35 00	37 00
No. 2 Cuts, 1¼ to 2 in.	45 00	48 00
Barn Boards, No. 1, 1 x 12	50 00	52 00
No. 1, 1 x 10		38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12		43 00
No. 2, 1 x 10	35 00	37 00
No. 2, 1 x 8	34 00	35 00
No. 3, 1 x 12	33 00	34 00
No. 3, 1 x 10,	28 00	29 00
No. 3, 1 x 8	28 00	29 00
Canadian spruce boards	23 00	24 00
Spruce, 10 & 12 in. dimension	26 00	27 00
Spruce, 9 in. and under	"	25 00
10 and 12 in. random lengths, 10 ft. and up	24 00	25 00
2 x 2, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3x4 random lengths, 10 feet and up	20 00	22 00
All other random lengths, 7" and under, 10 ft. and up	21 00	22 00
5 inches and up merchantable boards, 8 ft. and up, p 1s		19 00
Vermont spruce boards, matched	22 00	23 00
1 x 2 and 1 x 3 furring, p 1 s clipped and bundled	19 00	21 00
1⅝-in. spruce laths	4 00	4 10
1½-in. spruce laths		3 60

New Brunswick Cedar Shingles

Extras	$3 60	$3 75
Clears	3 25	3 40
Second clears		2 75
Clear whites		2 30
Extra 1s (Clear whites out)	1 45	2 25
Extra 1s (Clear whites in)	1 50	1 60
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 50	4 00
Red Cedar Eurekas, 18-inch. butts to 2-in.		4 20
Red Cedar Perfection, 5 butts to 2¼		4 75
Washington 16-in. 5 butts to 2-in. extra red cedar		3 50

THE ONLY LOG-LOADER

"IT HANDLES ANY SIZE LOGS!"

That allows empties to pass through on the same track without jacking up the loader on spuds.

The McGIFFERT Steam LOG LOADER

It is self-propelling, moves and spots its own cars, dispensing with the services of a road engine.

It cuts the cost of logging some 66%: We would like to send you a book of facsimile letters that PROVE this.

A beautifully illustrated book, fully describing the working of the McGiffert and the immense savings it makes possible, awaits your request for **"CATALOGUE M."**

CHICAGO — CLYDE IRON WORKS DULUTH, MINN. — NEW YORK

It will pay you to equip your Tram Cars with our special

Charcoal Chilled Cast Iron Wheels

We will fit these to your old axles, or furnish new axles and wheels separately.

Price, quality and service considered, we can save you time and money.

Further particulars on request.

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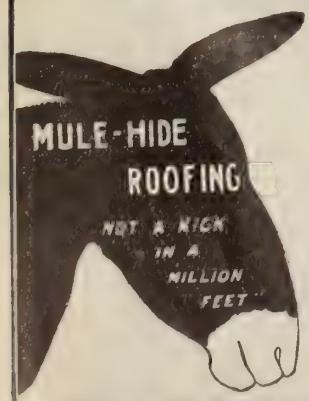
"MULE-HIDE" TOUGH, TIME-TRIED and TRUE



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When we are prepared to back up every foot of Roofing sold you with such a guarantee, it surely is up to you, Mr. Lumber Dealer, to investigate. Dealers handling our Roofing find it most profitable, because it means a satisfied customer.

FOR THE RETAIL LUMBER DEALER

We have planned a local campaign for every dealer who handles our line. It is the most effective aid ever given to dealers, and is entirely new and in advance of anything ever done in this line. It is all planned at our office and done at our expense. It not only helps your Roofing sales but advertises your other sales as well. You owe it to your business to investigate this proposition.

WRITE US. DELAYS DON'T PAY—OUR PROPOSITION DOES.

The DOMINION ROOFING COMPANY OF CANADA, Limited, Toronto, Can.

JAMES D. LACEY WOOD BEAL VICTOR THRANE

James D. Lacey & Co.

TIMBER LAND FACTORS and TIMBER VALUATORS

We submit **Detailed** estimates with **Topographical** maps of all **Timber Properties** offered through our house Representations based upon our own **Expert** cruisers and loggers, whose **Integrity** and **Experience** have been thoroughly tested over a period of many years.
We solicit correspondence with **British Columbia** timber owners and prospective purchaser

1215 Old Colony Blk. CHICAGO | **1211 Whitney Central Bldg. NEW ORLEANS** | **1104 Spalding Bldg. PORTLAND, Ore.** | **1009 White Bldg. SEATTLE**

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BARRELS, KEGS, STAVES AND HEADING
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An Up-to-date Cross-cutting Machine

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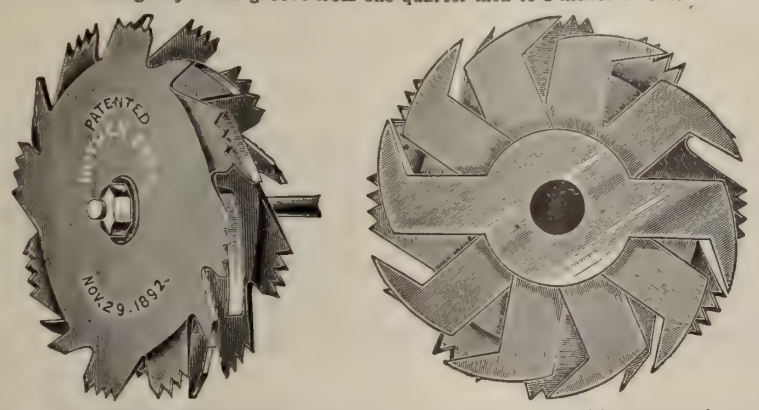
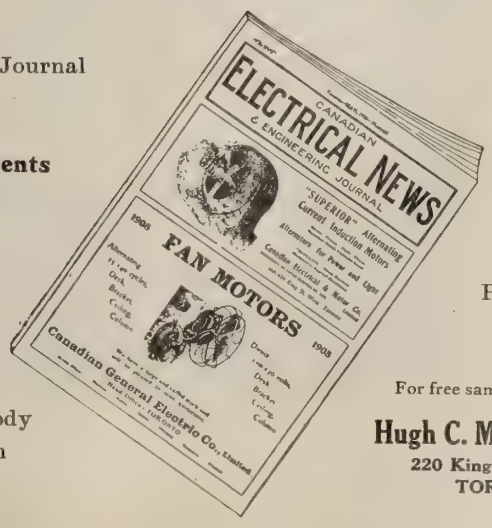
HUTHER BROS. PATENT GROOVER OR DADO HEAD
For cutting any width groove from one quarter inch to 2 inches or over



Can be used on any Circular Saw Material. Will cut a perfect groove with or across the grain. This is the only Dado Head on the market that gives entire satisfaction on all classes of work. No screw adjustment. For different width grooves, simply remove or add inside cutters. Sold by builders and dealers of wood working machinery in all parts of the United States. Will send on approval, in competition with any other make on the market; if not the best return at our expense.
HUTHER BROS., SAW MFG. CO., Inc., 1170 University Ave., ROCHESTER, N.Y., manufacturer of Circular Saws, Morgan Pattern Lock-Corner Box Cutters, Concave Saws, etc.

A National Journal for **Managers Superintendents Electricians** and **Engineers** of **Electric Light Plants** and Everybody Interested in Electricity



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34

American
No. 34 Inside Moulder

Do you want a copy of our No. 34 Moulder Book?

It's a high class piece of advertising telling about a high class piece of wood-working machinery. We venture the assertion that the American No. 34 has no equal; but its reputation will not rest on our assertion, but rather on your judgment,—the judgment of the trade.

We leave it to you. Get the book.

It's a *fast feed machine*—It resembles our No. 77 Planer and Matcher in that respect. It will manufacture siding at 150 or more feet per minute, and the heads are equipped with jointers for that purpose. It has every convenience and adjustment that the idea, inside moulder, suggests, and some new ones that you have never seen before.

The book is yours. Let us have your address for a copy of it. Sent free postage prepaid.

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Machine Knives, Circular Cutters and Mortise Chisel

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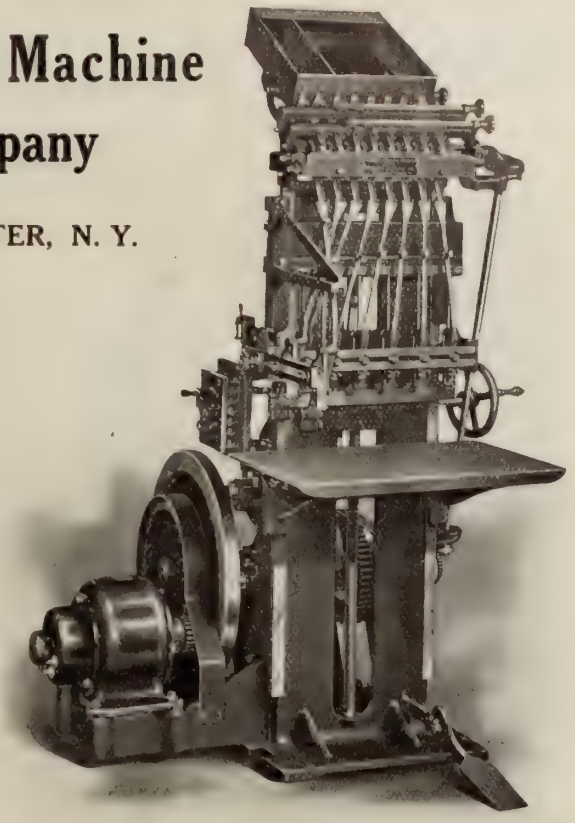

Manufacturers of -

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.

Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N. Y.

The Young Company, Limited
Wholesale Grocers

Lumbermen's Supplies

Complete Stocks
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Warehouses at:

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Make Your Power Transmission An Asset—Not a Liability

When purchasing Belting don't come to the conclusions quickly—the selection of a poor, cheap belt might mean considerable loss of power and efficiency in your plant.

Beardmore Belting will save you this trouble and loss—it will also wear better and last longer than any other belting on the market.

Beardmore Belting represents the maximum value obtainable in leather belting.

Made only from extra selected No. 1 Packer Steer Hides—tanned under the slow old fashioned process which positively ensures the long life of the belt.

Having everything under our supervision from the hide to the finished belt we are able to offer Leather Belting that we can fully guarantee.

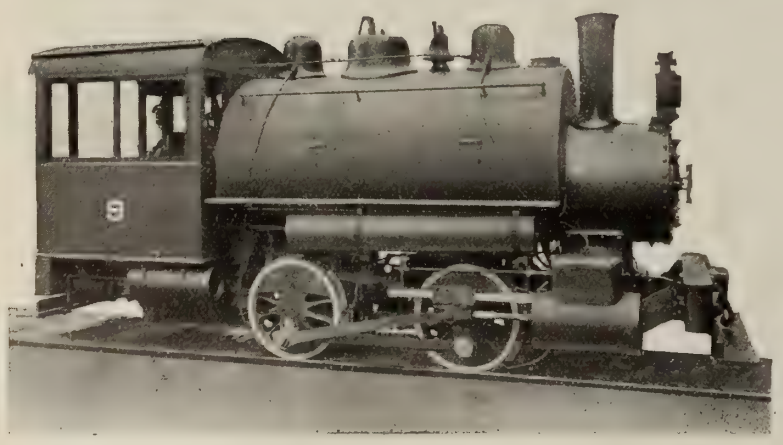
The General Supply Co. of Canada, Limited

356-58-60 Sparks Street, OTTAWA, ONTARIO

Market and Louise Sts., WINNIPEG, MAN. - - 115-125 Adelaide St. West, TORONTO

INDUSTRIAL LOCOMOTIVES

FOR BURNING COAL, WOOD OR OIL



Our locomotives are not built for one job only. They are built to last for years in the hardest service with a minimum expense for upkeep. This is the only proper way to build them.

Facility for making repairs when parts wear out was carefully considered in the design of our standard locomotives. Every detail is made with a view to securing the greatest possible reduction in the expense of repairs. Interchangeability reduces the time the locomotive is idle when repairs are necessary, as like parts will fit any other locomotive of the same size and design.

Consider the reduction in your profits when your locomotives are waiting for repairs.

Interchangeable parts, sure to fit, are kept in stock at all times and can be shipped at short notice.

MONTREAL LOCOMOTIVE WORKS

Dominion Express Building, MONTREAL, CANADA

Makes It's Mark Vivid and Lasting

Marks that remain vivid and wear like iron are a real satisfaction to the man who handles lumber. The metallic pigments, like graphite, of DIXON'S LUMBER CRAYONS offer marvelous resistance to all kinds of weather conditions. Their marks are often visible after six months of severe exposure to sun and storms.

DIXON'S LUMBER CRAYONS

have always remained the recognized standard because of their one, uniform and dependable quality; their convenient and uniform shape and size and because of the careful selection of materials used in their manufacture. DIXON'S LUMBER CRAYONS are made in nineteen grades and colors, including black (six grades), red (two grades), blue (two grades), green, white, yellow, brown, terra cotta, violet, pink and orange. Some are made to fill particular needs—let us tell you more about them. Get acquainted.

Write for lithographed booklet No. 239, illustrated in colors.

Joseph Dixon Crucible Company
Jersey City, U. S. A.

James W. Sewall
Forester and Surveyor

Mapping and Surveying of Wild Lands
Estimation of Timber and Working Plans

(Formerly forestry manager of the Appleton & Sewall Co.)

Old Town, Maine, U.S.A.

"John Bull" *Larrigans*

Wear Like Iron

WE tan the leather these larrigans are made from and know they will stand all kinds of wet and rough usage when properly cared for. We put a counter stiffener in our larrigans and sew it in with the leg when soled and heeled—a very durable feature in our goods.

Next time you buy larrigans see that you ask for **"John Bull."**

R. M. Beal Leather Co.
Limited
LINDSAY, Ontrio

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

HEISLER GEARED LOCOMOTIVES

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

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Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

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Burned with WOOD, from selected Ohio bottom Rock, and packed fresh from the Kilns, in new, tight, double-headed barrels.

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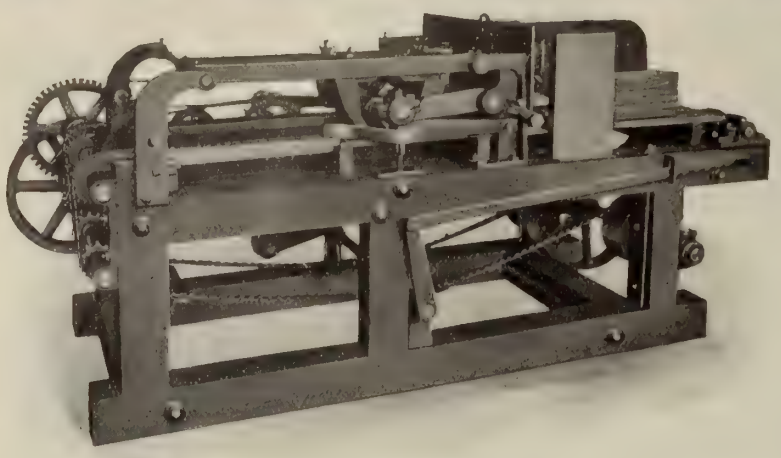
Wire Us Your Orders for Prompt Shipment

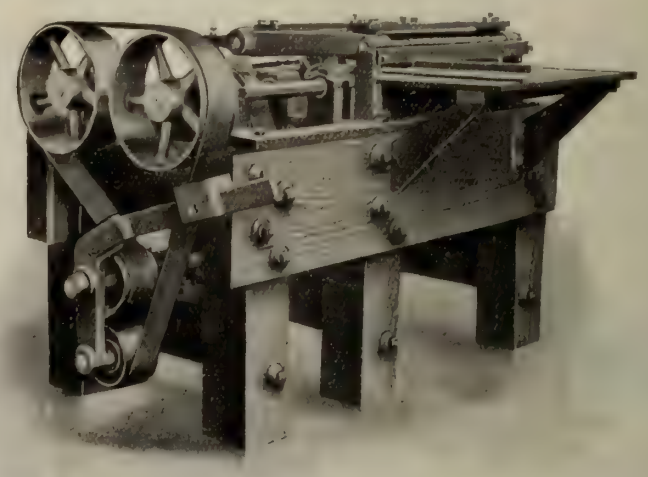
A Pair of Useful Machines



NO. 420 RECESSING MACHINE

Our No. 420 Automatic Recessing Machine will cut recesses with safety and dispatch.

Two boys will turn out more work than four men can accomplish of a similar kind on the ordinary cutter head most often used for the purpose. Will handle stock 20 inches wide by 30 inches long composed of one or more pieces, only occupies a floor space of 2 ft. 11 in. by 6 ft. 6 in.



No. 5 LATH EDGER

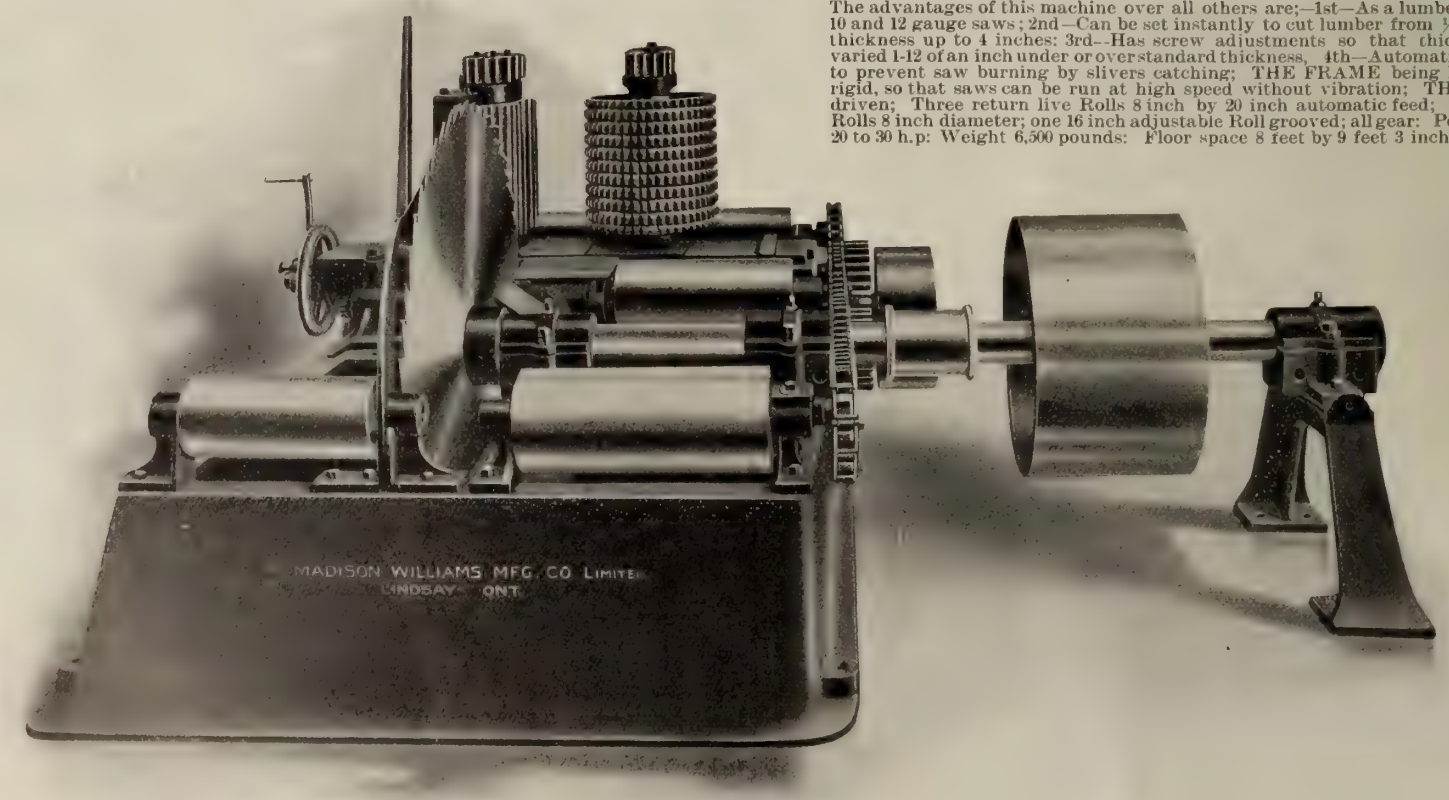
This No. 50 lath edger will enable you to use cheaper labor, less men per thousand lath and get more lath out of every slab handled besides getting number one lath out of thin slabs that would be worthless using any other system. The saws are spaced to rip one and one half inches wide. The first saw cuts one and one half inches from the guide so there is no waste on straight edge stock.

Send for complete catalogue of box machinery, resaw and saw mill machinery.

Mereen-Johnson Machine Company - Minneapolis, Minn.

JOHNSTON RE-SAW is a Lumber Saver and a Money Maker

The advantages of this machine over all others are;—1st—As a lumber saver using 10 and 12 gauge saws; 2nd—Can be set instantly to cut lumber from ½ inch to any thickness up to 4 inches: 3rd--Has screw adjustments so that thickness can be varied 1-12 of an inch under or over standard thickness, 4th—Automatic adjustment to prevent saw burning by slivers catching; THE FRAME being heavy is very rigid, so that saws can be run at high speed without vibration; THREE POINT driven; Three return live Rolls 8 inch by 20 inch automatic feed; Two grooved Rolls 8 inch diameter; one 16 inch adjustable Roll grooved; all gear: Power required 20 to 30 h.p: Weight 6,500 pounds: Floor space 8 feet by 9 feet 3 inches:



THE MADISON WILLIAMS MFG. CO., Limited, Lindsay, Ontario

Builders of Sawmill Machinery and 'Triumph' Turbine Water Wheels

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WIRE ROPE

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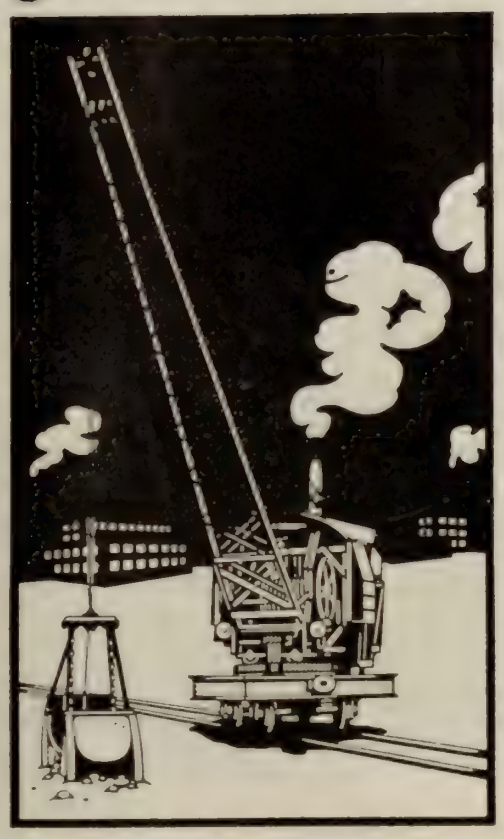
WIRE ROPE



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Cranes
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Elevators
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Does not Rotate With or Without The Load
All Sizes In Stock

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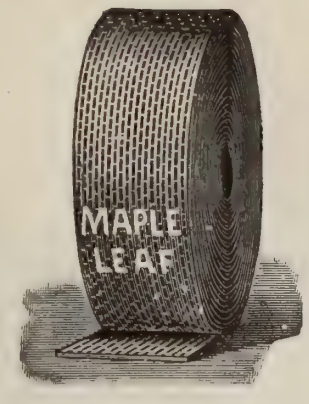
General Supply Company of Canada Ltd.—Winnipeg Agents

MAPLE LEAF BELTING

Strong
Waterproof
True
Running



For
Indoor or
Outdoor
Work

¶ Maple Leaf is the most economic and efficient belting for power transmission and conveying, etc.

¶ It costs only half as much as leather and 25 per cent less than good rubber belting.

Write for sample and prices to the sole manufacturers

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HAMILTON, CANADA

CAMP SUPPLIES

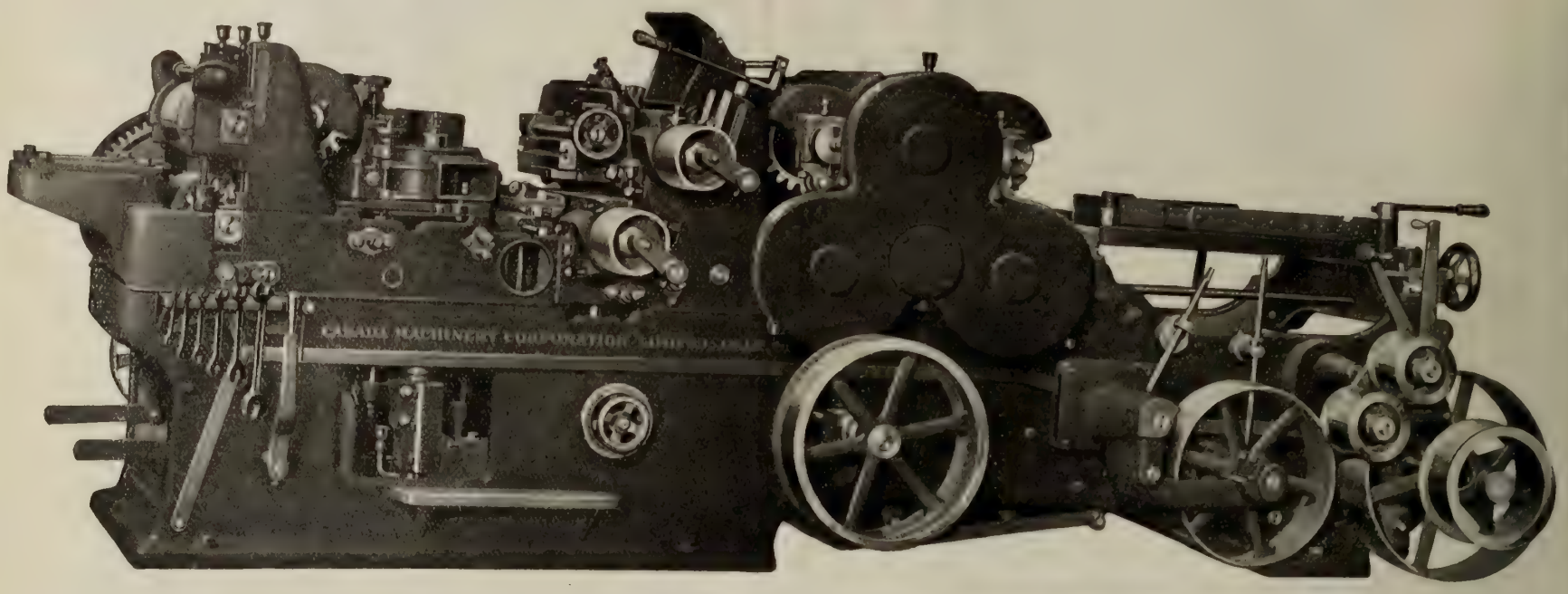
We offer something very good and substantial in Tea which we have branded Camp blend and which is exactly suited for the requirements of the Camp, packed in Chests of about 100 pounds each. Price..... **16c.**

H. P. Eckardt & Company
WHOLESALE GROCERS
Corner Front and Scott Streets, Toronto

No. 122 MATCHER

C.M.C.

No. 122 MATCHER



C.M.C. No. 122 Heavy Duty Fast Feed Planer and Matcher

CYLINDERS both top and bottom are of the round type equipped throughout with high speed knives.

SIDE HEADS either of the round type or of the Shimer pattern can be supplied as desired.

FEED consists of six 12 inch rolls under spring tension driven by accurately machine cut gears carefully guarded.

ALL DRIVES are either by belt or gears no chains being used to give constant trouble.

BELTS are all long and driven from a self contained counter shaft attached to the main frame, and are all tightened by one lever.

WORKMANSHIP is of the highest class.

PERFECT WORK is guaranteed at a speed of 200 feet per minute.

PROFILING ATTACHMENT can be fitted at the delivery end of a machine for making drop siding, casings, base board, etc.

JOINTING DEVICE can be supplied for truing irregular surfaces.

Full Details with Bulletins and Prices Supplied on Application

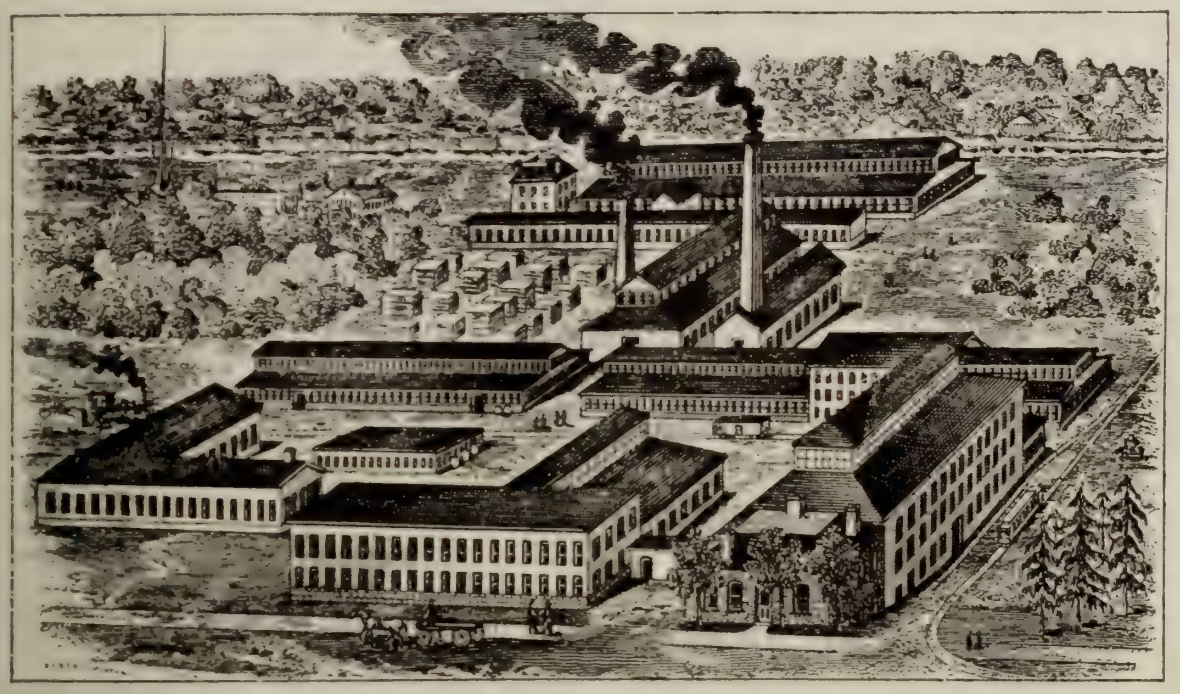
We Make the Most Complete Line of Wood-Working Machinery in Canada

Canada Machinery Corporation, Limited

Galt, Ontario

MAPLE LEAF SAWS

The Improved Racer Cross Cut Saw, by Actual Test, is the Fastest and Easiest Cutting Saw Made



The Maple Leaf saw is higher priced than the ordinary saw because it costs more to make it. It is made of the very highest quality of steel and tempered by a secret process which toughens and refines the steel. The Maple Leaf trade mark on the saw means that it is the equal, if not superior to any saw made. It also means that you are privileged to test it against any other make and if not found equal or superior in quality you can return it and have your money refunded.

The ambition of the manufacturers of the Maple Leaf Saws has always been to produce the best tempered saw in the world and they are constantly investigating and experimenting with this end in view. They have recently made some valuable discoveries in evenness of temper. It has always been difficult to get a perfectly even temper on long and thin sheets of steel, such as saws are made of. Our recent discoveries make this an absolute certainty. Every user of saws should bear in mind that the temper of the saw is its most valuable quality. High finish and attractive appearance amount to nothing if the temper is not right.

All Maple Leaf Saws are Guaranteed to be Perfect in Temper

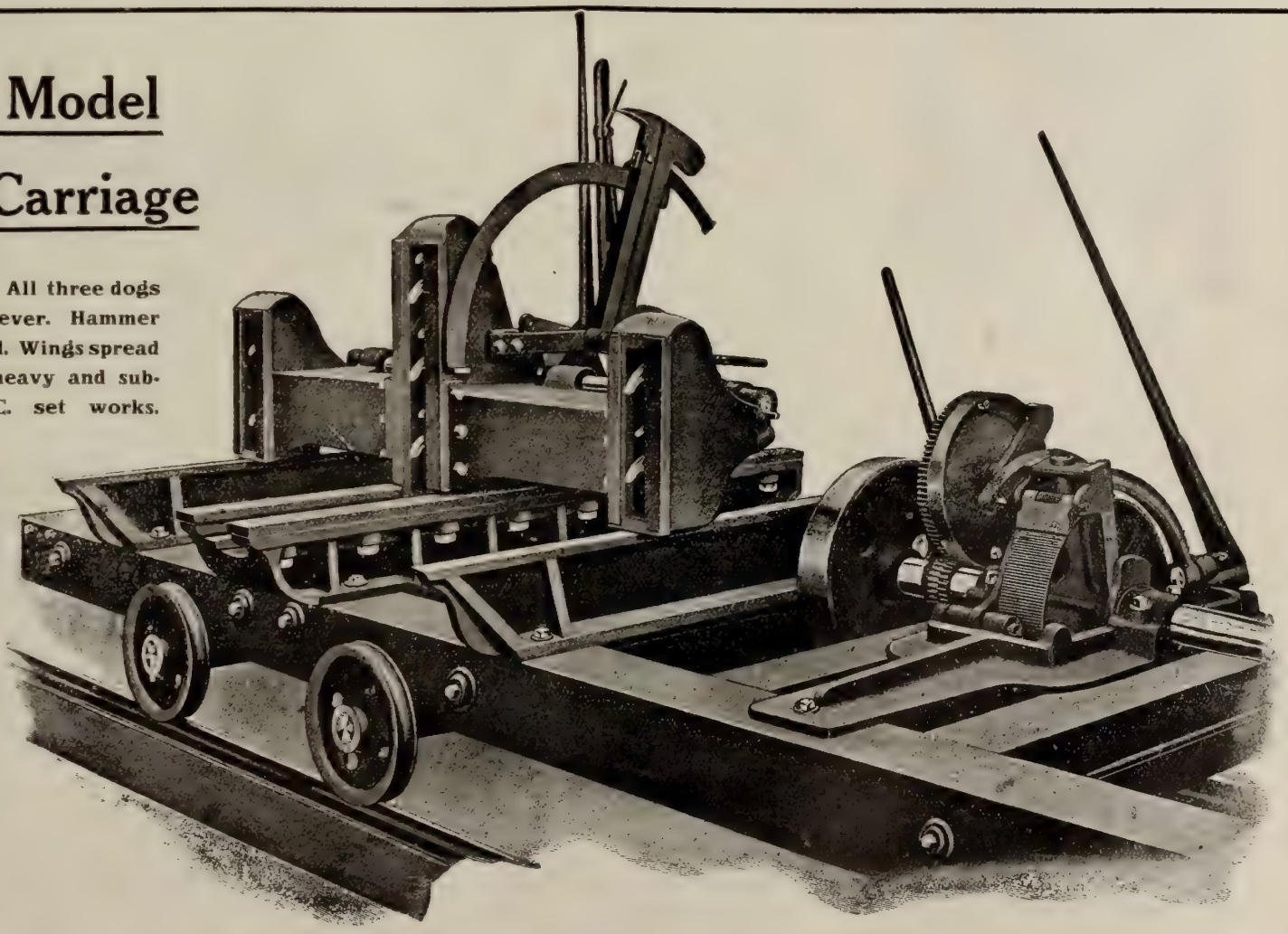
Shurly-Dietrich Co., Limited Galt, Ontario

Mowry's Model Saw Mill Carriage

With wing knee. All three dogs operated by one lever. Hammer dogs easily applied. Wings spread five feet. Very heavy and substantial. Style C. set works.

This is a model Saw Carriage and always a great favorite among lumbermen who appreciate the best. It is simple, easy to operate, can't be wrecked and will reduce your bill to nothing.

Where will our catalogue and literature find you?

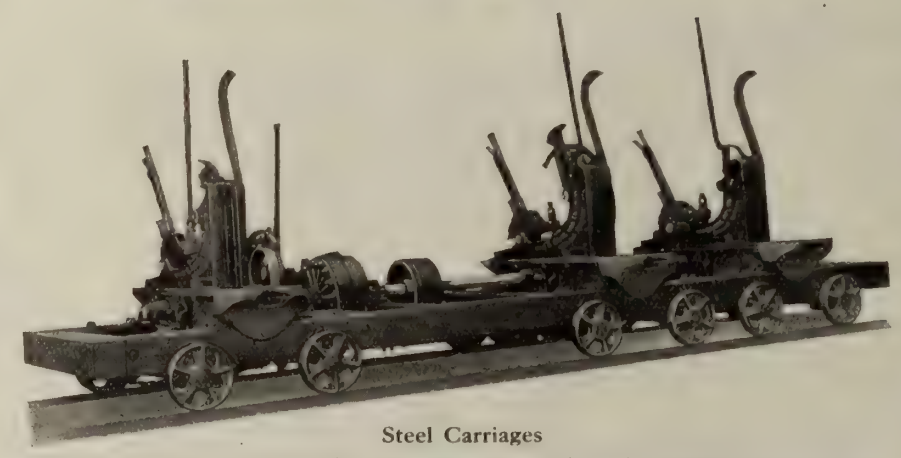


Our 46 inch Saw Carriage

MOWRY & SONS, - Gravenhurst, Ontario

Long's Quality Machinery

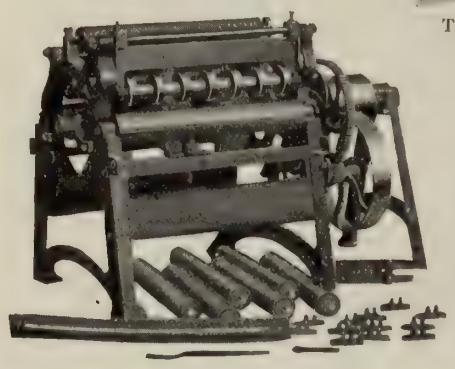
Here are a few machines which appeal to the practical millman.



Steel Carriages

This style built with 36-in., 40-in., 44-in., 48-in., 54-in., 60-in., 72-in., opening from saw line

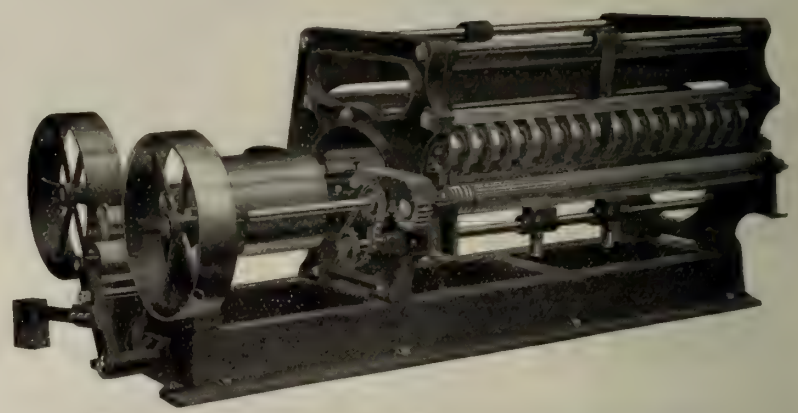
We have others. If you don't see what you want here, send us your inquiry.



32-in. Edger

EDGERS

suitable for Sawmill of any Capacity



This style built 54-in. 60-in., 66-in., 72-in., 84-in., 96-in. between frames

3 Saw Lath Bolter

Complete Mills of any Capacity

No. oo Portable Mill

Our entire attention is devoted to studying the needs of the sawmill trade. Our services are at your disposal.

Heavy Duty Lath Machine

Mill plans and specifications of complete mills furnished.

The E. LONG MANUFACTURING CO., LIMITED, Orillia, Ont.

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WINNIPEG—Stuart Machinery Co., Ltd.
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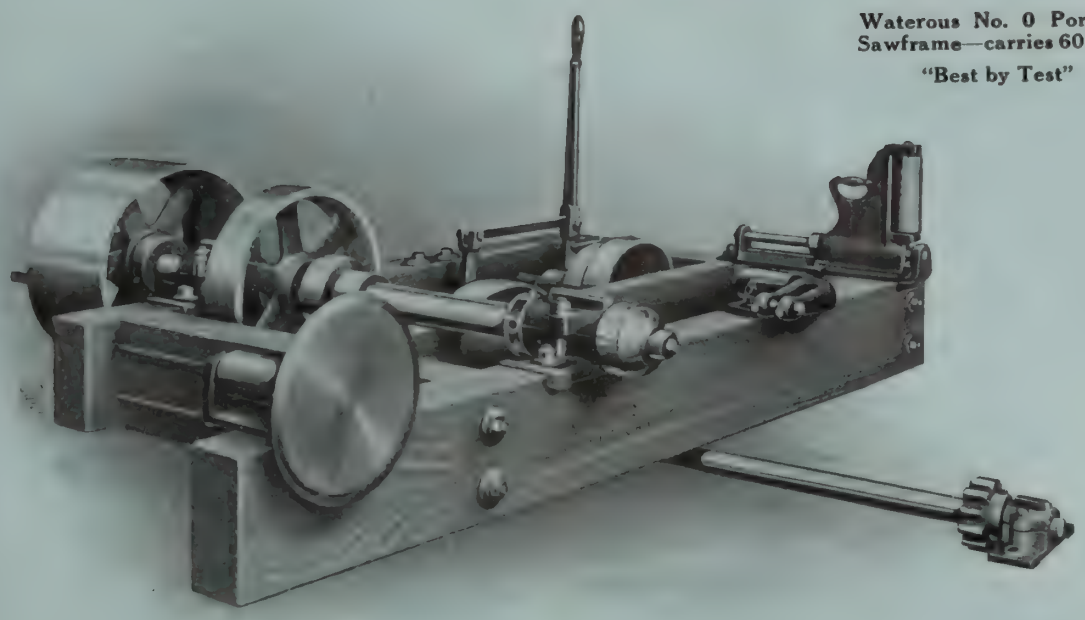


Waterous No. 0 Portable Sawframe—carries 60" saw
"Best by Test"

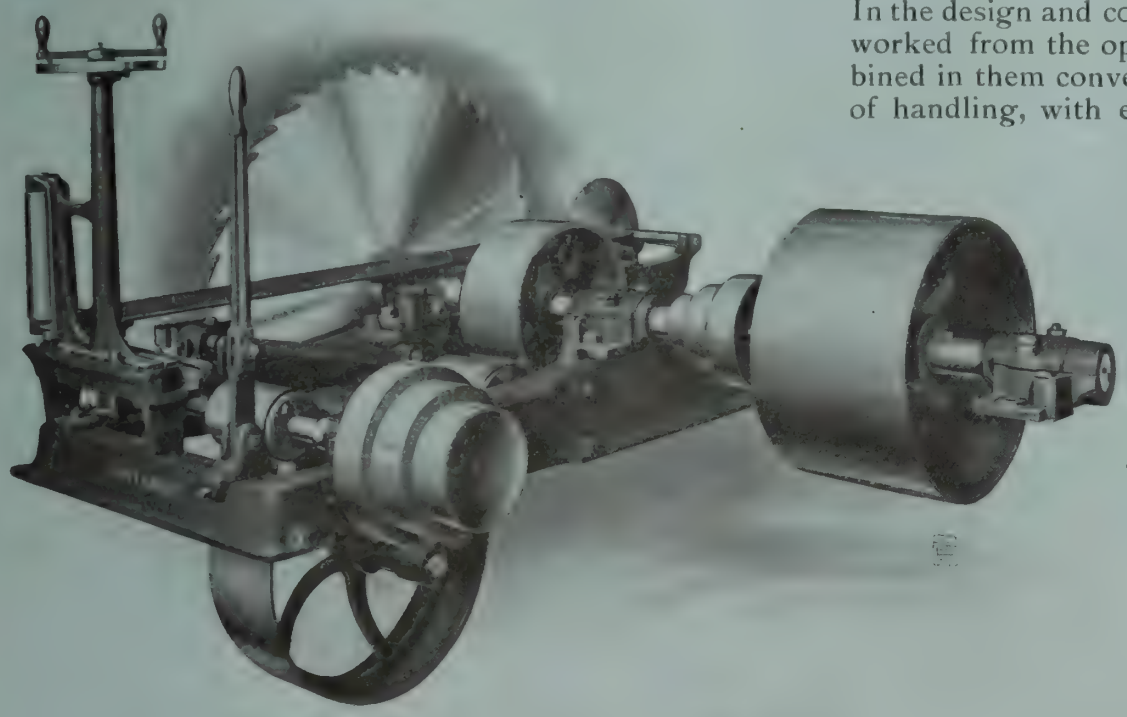
CIRCULAR SAWFRAMES

For Portable, Medium and Heavy Mills

WATEROUS Circular Sawframes are built to suit every mill size. Their capacity ranges from 2000 to 25000 ft. per day.

Every frame we build is supplied with a heavy mandrel of larger diameter than is the general custom. Three bearings are used to support it. Fittings include wide-faced powerful iron and paper friction feed-works, disc wheel splitter, timber guage, belt tightner, and rigid and quickly adjustable saw guide.

In the design and construction of these Frames we have worked from the operator's view point and have combined in them convenience, accessibility and simplicity of handling, with exceptional strength and accuracy.



Waterous No. 1 Sawframe—takes 60" saw—weight, 2300 lbs.

For many years the No. o Sawframe, which is shown in the cut above, has been sold as part of our Portable Outfit, and its indorsement has been universal. The heavier Frames of cast iron and steel construction throughout have also been given the test of years of actual service, and with improvements suggested by this use have made good wherever installed.

A new catalogue, No. 110, of Sawframes and Accessories only, has just come in from the printer — we have a copy here for you.

The Waterous Engine Works Co., Ltd.

Brantford, Canada

AGENT—H. B. Gilmour, Vancouver, B.C.

BRANCH—Winnipeg, Man.

$5,000,000.00

worth of mixed metals is what we market every year

PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.

Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

We solicit your patronage

HOYT METAL CO., Toronto, Canada

New York, N. Y. **London, England** **St. Louis, Mo.**

DESIGN B. L. NC 3

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WEST TORONTO

MANUFACTURERS OF

Staved Columns

Veneered Doors

Newel Posts

Sashes - Flooring

Trim

Pine Doors and Frames

Turned Newel Posts and Balusters

Cypress Greenhouse Material

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The J.C. McLaren Belting Co.

Limited

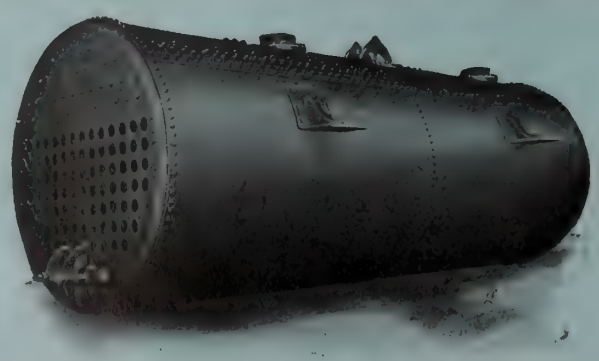
General Mill Supplies **MONTREAL**

The John Inglis Company, Limited

Engineers & Boiler Makers

"Inglis" Boilers are the Best

Write us for quotations



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We Make

Return Tubular, Scotch Marine, Fitzgibbon, Scotch Dryback, Locomotive, Water Tube.

14 Strachan Ave. **Toronto, Canada**

Vol. 32 Toronto, July 15, 1912 No. 14

Canada Lumberman & Wood Worker

Time is Money

The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.

Swell Weld Coil Chain

Tested Steel Chain

Tested Steel Chain

Made in Canada **Sold by Jobbers**

25% More Weld — 25% More Strength — 25% More Wear

McKinnon Chain Company
BUFFALO, N. Y. ST. CATHARINES, ONT.

SAW MILL SUPPLIES

There is not a jobber or manufacturer, or any other person employed by either, in an official position who should miss the chance of looking over our new Catalogue on Transmission Supplies.

If you are looking for "Quality and Service" in your mill supplies we know you will be impressed with the lines shown.

Send a post card for it to-day and you will have it by return mail.

DICK'S Balata Belting — Leather Belting — Wood Split Pulleys — Shafting — Hangers — Iron Pulleys
Steel Pulleys — Clutches — Babbitt — Wood-Working Machinery — Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales — Fairbanks-Morse Gas Engines — Safes and Vaults
Montreal — Toronto — St. John, N. B. — Winnipeg — Calgary — Vancouver

What are You Paying Your Watchman for?

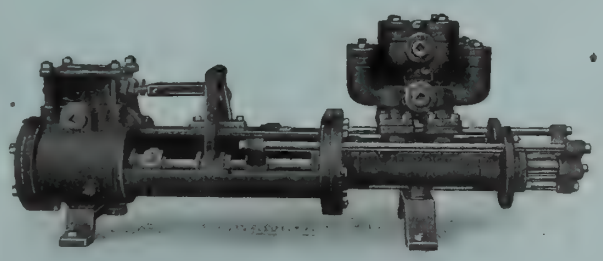
CLOCK

THE HARDINGE WATCHMAN'S CLOCK can best answer this question.

Write for Circular M-48.

STATION

HARDINGE BROS., 3133-3141 Lincoln Ave., Chicago, Ill.



Triplex Power Pumps, Vacuum Pumps, Condensers

The Smart-Turner Machine Co., Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

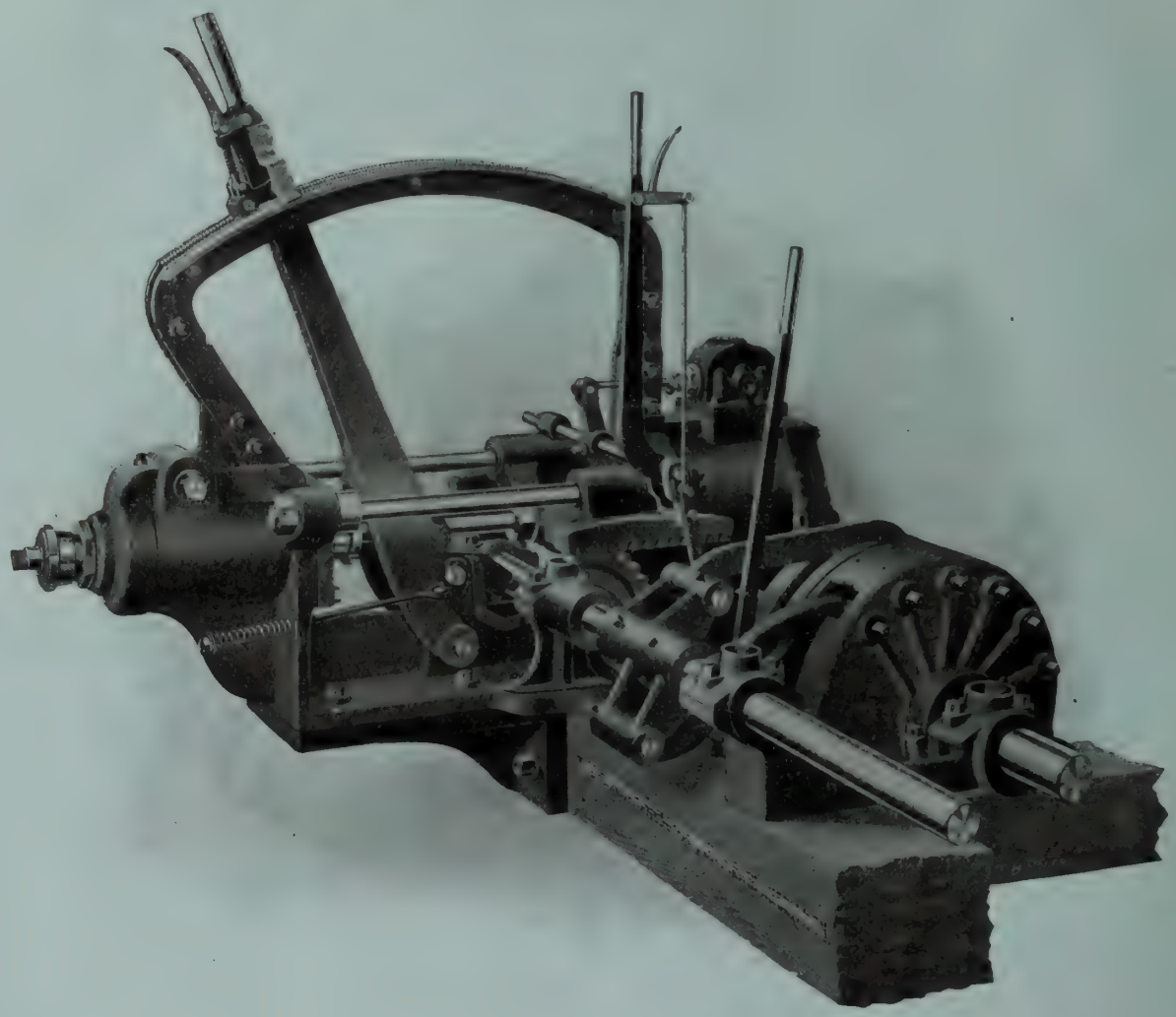
CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

Alphabetical Index to Advertisers, page 60

Did you ever really figure what it means to you to increase your cut 2,000 feet per day?



That is, increase it 2,000 feet per day without adding to your cost of sawing.

Or, in other words, what effect will it have on your profits if you can distribute your overhead charges and wages over an output 2,000 feet per day greater than it is now?

If you haven't figured it out, take your pencil and try it now.

You know how much it costs you to run your mill every day—divide that amount by the number of thousand feet per day in your present output—add 2,000 feet to your present output and divide your daily cost by that amount—and the difference between the two results represents the saving per thousand feet in your operating cost.

Then multiply that figure by your total output per season—and we think the result will surprise you, if you have never looked into this before.

This is just one of the ways in which our FOUR INCH STEAM SET WORKS will make money for you, and it will do just this because the users themselves have written us stating that they have increased their cut *upwards* of 2,000 feet per day.

May we send you further information about this Steam Set works?

William Hamilton Company, Limited

PETERBOROUGH - ONTARIO

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VIEW OF MILL PROPERTY AT CACHE BAY, ONT.

QUALITY Our Watchword

The finest pine timber in Northern Ontario and mills equipped in the most modern way enable us to turn out timber that is strictly "up to the minute." Send us your next order for

Norway or White Pine Lumber, Railroad and Structural Timbers, Flooring, Ceiling, Moulding, Siding, Cross-arms, etc.

Daily Capacity of Mill 190,000 feet of lumber, 65,000 pieces of lath, exclusive box boards and pickets.

George Gordon & Company

Limited

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Vice-President

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Established
1873

GILLIES BROS. Limited

Mills & Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

Cedar Shingles and
Railway Ties

RED PINE, SPRUCE, HEMLOCK, CEDAR

Planing Mill, Yard & Office
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CAPACITY 40,000,000

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The

Georgian Bay Lumber Co.

Limited

Waubaushene, Ontario

Manufacturers of High Grade

Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

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Selling agents for Fraser & Co., Manufacturers

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Red Pine
Spruce
Lumber and Lath

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The
Victoria Harbor Lumber Company
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Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont. Head Office, 12-14 Wellington Street East, TORONTO, ONT.

Good Hemlock is in Constant Demand — Let Us have your Orders Now

One thing you can be sure of —always. Every order received by us, whether direct or through the mail, is given complete and careful attention.

It is always our endeavor to give the quickest possible shipments on all orders and lumber sent out by us is of absolutely uniform grade.

Let us show **you** what we can do on your next order. Send it now.

We can make quick shipment—in any quantity—of

HEMLOCK

1 in. boards, 1 x 6, 1 x 8, 1 x 10. Dressed at point of loading. Quality Mill Run—lowest market prices.

WHITE PINE and QUEBEC SPRUCE

from new sawing—a full line always in stock. Also Cull Hemlock and Cull Spruce.

☞ *Have We Your Order ?* ☜

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Ed. T. Saxe, 200 Claremont Ave., MONTCLAIR, N.J. **Hope Chambers, OTTAWA, CAN., Head Office**

Timber Limits for Sale
on Georgian Bay

The undersigned offer for sale in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont. ; Tug Scow and other Lumber Equipment, including boom chains, plows, sleighs, etc.

The Limits, part of which have recently been sold, include : 440 square miles of licensed and deeded Pine, Hemlock, Spruce, Birch and other timber. The licenses from the Ontario Government include all timbers and are not restricted for time. Government dues are as follows : Saw Logs, White Pine,$1.50 per M. ft., B.M. Saw Logs, Hemlock, Tamarac and other woods 75c. per M. ft. The timber is situated in the Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street. The Canadian Pacific, Canadian Northern and Grand Trunk Railways run through the limits, which makes some of the parcels offered for sale particularly desirable for small mill owners.

A circular giving full information, maps, terms and conditions of sale will be furnished upon application to

The Parry Sound Lumber Co., Limited

1315-20 Traders Bank Building, TORONTO, CANADA

THE trend of trade is now towards our **CUTLER** Mills, when customers want anything at **BAY** ports for water or rail delivery, and our **LUMBER** is selling itself by repeat orders from any **COMPANY** to whom we make a shipment. Our stock is **LIMITED** but we still have a goodly quantity to dispose of at prices worth while considering.

DON'T BUY TILL
YOU GET OUR
PRICES

The Eyer Lumber Co.
34 Victoria Street, Toronto
are Selling Agents

The Rideau Lumber Co., Limited
Trafalgar Building, Ottawa, Ont.

We offer a block of 1 in. Dry White Pine 6/11 ft.

Say 85%, 4/6 in. wide, Balance 7 in. and wider.

Quality---Close enough to good to satisfy most demands.

PRICE MODERATE

'RED DEER'
Hardwood Flooring

is the flooring that is manufactured expressly to supply the demand for the best. It is made by modern machinery, from carefully selected stock, and every precaution is taken throughout our entire system to make it fulfill in every particular the name we have built up for high quality flooring.

We also manufacture Hemlock, Bill Stuff, Spruce and Hardwood Lumber

We specialize in prompt shipments

The Muskoka Wood Mfg. Co., Limited
Huntsville, Ont.

Knowles & O'Neill

WHOLESALE

Lumber, Ties, Pulpwood
Etc.

COMPLETE STOCK OF
Quebec Spruce and Pine Lumber
ALWAYS ON HAND

An exceptionally nice lot of 2″ Pine, well seasoned, for sale, also 1″, 2″, 3″ Spruce, Square and Waney Spruce and Cedar.

Correspondence Solicited. Room 4, Hochelaga Bank Building **Quebec, Que.**

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Limited

MANUFACTURERS OF

Lumber, Lath and Shingles

Offer at LOW FIGURE for QUICK sale:

80,000′ 2 x 4 & up 6/16′ No. 1 White Pine Mill Cull
20,000′ 2 x 4 & up 6/16′ No. 2 White Pine Mill Cull
18,000′ 1 x 4 & up 6/16′ Log Run, Dead Culls out White Birch
125,000 pcs. 1½ x ⅜ x 32″ Mill Run Hemlock Lath

All of above, shipment G. T. R. from Golden Lake, Ontario

Head Office: - EGANVILLE, ONT.

JAS. PLAYFAIR D. L. WHITE

PLAYFAIR & WHITE

Manufacturers and
Wholesale Dealers

Lumber - Lath - Shingles

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Contractors for Railway Supplies
BILL TIMBER a Specialty

Long Lumber Company
Hamilton, Canada

Our Specialty

Norway and Yellow Pine
BILLS STUFF TO ORDER

Ontario Agents for
A. Cotton's XXX B.C. Shingles
10 Cars in Transit

Cameron & Co, Limited

Manufacturers

LUMBER, LATH, SHINGLES, TIMBER, POLES and POSTS

We have for quick shipment

— DRY —

1" WHITE PINE MILL CULLS
1" " " BOX

Mill and Yard
OPEONGO, ONT.

Head Office
OTTAWA, ONT.

Send your enquiries to our Head Office

The McLennan Lumber Co., Limited

Everything in Lumber
Rough and Dressed
Wholesale and Retail

Want to Purchase

Dry Ash, Birch, Basswood and Rock Elm

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21 Dorchester Street West, MONTREAL

The Hurdman Lumber Co.

OTTAWA, CANADA Limited

EASTERN

Pine, Spruce, Hemlock, Hardwoods, Timber, Lath and Shingles

WESTERN

British Columbia Timber

at Lowest Prices and any Sizes.

Casey-Shaw Lumber Co.

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Sudbury, Ontario

Manufacturers of

Lumber and Lath

Planing Mill Work

SAW MILLS
Long Lake, Ont. and Blezard, Ont.

GENERAL OFFICE
Sudbury, Ont.

Williams Lumber Company

Wholesale Dealers in

White and Red Pine, Spruce and Lath
ROUGH OR DRESSED

For 1 x 4 and up x 6/11 ft dressing shorts.
For 5, 6 and 8/4 x 12/16 dressing strips.
For 5, 6, and 8/4 shipping cull shorts, strips and sidings.

Write us before placing your orders

18 CENTRAL CHAMBERS - OTTAWA, ONT.

Edward Hines Lumber Co.

(Branch Office)

Owen Sound, Ont.

All grades of

WHITE PINE

and

Norway Dimension Bill Stuffs

WHITE and RED PINE LATH

WILLIAM H. BROMLEY

Wholesale Lumber

Aux Sable River Forest Reserve Timber Produces Best Lumber in Ontario.

Every lumber dealer and consumer in Western Ontario, Buffalo, Detroit, Central New York and Montreal knows what excellent lumber is produced from Playfair & White's mills at Midland, Ont. I can offer you from that point, all sizes of White Pine and Norway Pine; any quantity of the choicest lumber in the Georgian Bay district. These mills will commence sawing about May 15th.

SPECIAL:—The best block of Basswood in Ontario. estimated 2,000,000 ft. I am prepared to offer, sawn to any size required.

Other stocks of Pine, Hemlock and Spruce at Pembroke, Ottawa and Collingwood.

Quotations promptly given and enquiries solicited

Pembroke - - Ontario

ESTABLISHED 1855

THE McGIBBON LUMBER CO.

OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

Hemlock Billstuff a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

JOHN MCKERGOW, President — W. K. GRAFFTEY, Managing-Director

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Wholesale Lumber

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SPRUCE

13 Foot and 16 Foot

Lath and White Cedar Shingles

CHRISTY-MOIR CO.

149 Broadway, New York City

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Brockville Lumber Company

LIMITED

Brockville, Ont.

Morristown, N.Y.

Wholesale and Retail

Lumber, Lath, Shingles, Bill Stuff

And all kinds of SASH FACTORY and PLANING MILL GOODS.

McLennan Timber Lands and Lumber Co. Limited

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Hardwood Flooring

End Matched, Bored, Polished and Bundled

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Our Prices will Interest You

Pine Doors

That Are Right

Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

No. 3 Pine Doors

THE

Pembroke Lumber Co.

Pembroke, Ontario

A Satisfied Customer

is a powerful factor in building up your business. You will always satisfy your customers with our

Hemlock, Pine and Hardwood

because it is made from the finest timber that grows—and it is **graded right.** We are the only firms to dress and size all our Hemlock lumber. You will save money on your freight—and that helps some.

We specialize in car lots—
Write us your requirements

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Otter Lake Station, Ont.

The Harris Tie & Timber Co.,

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Cedar Poles and Posts, Piles and Bridge Timber

Track and Switch Ties

The
North Channel Lumber Co.
Limited
Successors to
SAGINAW LUMBER & SALT CO.

MANUFACTURERS OF

Pine Lumber

Saginaw, Mich. U.S.A.
Mills at Thessalon Ont.

We Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

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QUEBEC

HAEBERLE LUMBER CO.
LUMBER AND TIMBER
White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.
NIAGARA FALLS, N.Y.

The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

Orillia, Ont.

R. LAIDLAW LUMBER CO.
LIMITED

Toronto
Sarnia
Buffalo

Imperial Timber & Trading Co.
LIMITED
VANCOUVER, B.C.
Branch Office:
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CALGARY, ALTA.

Every Description of
DOUGLAS FIR,
RED CEDAR, SPRUCE,
HEMLOCK, LARCH and
PINE LUMBER and
RED CEDAR SHINGLES

Heavy Construction Timbers a Specialty
Lengths up to 110 ft.
Try a car of our Extra Quality XXX RED CEDAR SHINGLES
Rail and Water Shipments.

CANADIAN OFFICE & SCHOOL FURNITURE
CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS.
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

WANTED
100 m ft. clear hard Maple axles 4 in. x 5 in.-6ft. and 12 ft. long. Also all thicknesses Common and Better Birch.

For Sale
All grades and thicknesses of Cherry and Mahogany lumber. Also Mahogany, Circassian Walnut and Quartered White Oak veneer all thicknesses. Please let us hear from you.

WARREN ROSS LUMBER CO.
Jamestown, N. Y.

SPECIALTIES
Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie
Pine and Hardwood
Lumber
Lath and Shingles
North Tonawanda, N. Y.

"Well Bought is Half Sold"

STOCK OFFER;-

2 Cars	2 x 6	Com.	W. P.			$22.00
3 "	2 x 10	"	"			25.00
2 "	4 x 4	Sel.	M.	R. W. P.		28.00
1 "	6 x 6	"	"	"		30.00

Ready for Quick Shipment
F.O.B. BYNG INLET

2 Cars 4 4" Crating Red Pine at $15.00
F.O.B. MIDLAND

3 Cars 5 4" x 4 & up No. 1 Com. & Btr. Basswood.
Runs strong to 1sts and 2nds
Early 1911 cut

Graves, Bigwood & Co.
MANUFACTURERS OF
Pine and Hemlock Lumber
730 Traders Bank Building, Toronto, Ont.
Mills: Byng Inlet, Ont.

We are Buyers of
Hardwood Lumber
Pine and Spruce
Veneers (3 or more ply) Handles (all descriptions)
Staves Hoops Headings
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News Chambers, 57 Hope St., Glasgow

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Agents for Shippers of
SPRUCE, PINE, HARDWOODS AND OTHER WOOD GOODS.
Please Offer Stocks on hand.
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FARNWORTH & JARDINE
Cable Address: Farnworth, Liverpool
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2 Dale Street, Liverpool, and Seaforth Road, Seaforth Liverpool England

Saddle Tank Locomotives
Geared Locomotives
Steel Rails
Flat Cars
All Secondhand
Correspondence solicited
SESSENWEIN BROS.
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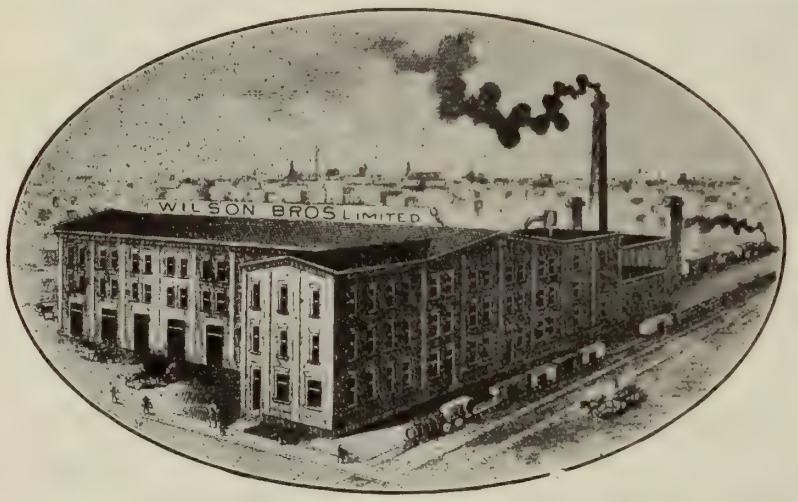
Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office: — Pacific Building, VANCOUVER, B. C.**



Send along your Orders

—FOR—

Doors, Sash, Wood Turnings
Interior Finish
Hardwood Flooring
Pine Flooring

EVERY ONE A GOOD SELLER

Wilson Brothers, Limited

COLLINGWOOD, ONTARIO

Wm. Milne & Son, Ltd.

Manufacturers:

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.
Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

Spanish Mill

White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel shipment only.

THE
M. BRENNEN & SONS MFG. CO.
HAMILTON, ONT.

MATCHING, DRESSING AND RE-SAWING

done in transit at lowest prices. We are equipped to dress and bore heavy Georgia Pine Timbers.

Hardwood Lumber

We have the following for sale:

500,000-ft. 1-in. to 4-in. Birch half ready for shipment in July.
350,000-ft. 1-in. to 2-in Basswood Michigan Stock, nice and bright, No. 2 C. and B.
30,000-ft. 2-in. Birch dry stock, No. 1 common and better last years stock.
30,000-ft. 2-in Hardwood Maple two years old, No. 1 C. & B.
250,000-ft. 1-in. to 4-in. Michigan Maple hard No. 2 C. & B.
45,000-ft. 1-in. Ash No. 1 common and better dry.
30,000-ft. 3-in. Soft Elm for quick shipment only cut in March

Glengarry Lumber Co.

Berlin, Ontario

TORONTO WHOLESALERS

Full Stock Dry Pine and Hemlock

BILLS IN PINE AND HEMLOCK

Cut to Order

NEW TELEPHONE ADELAIDE 1783

The Fesserton Timber Co., Limited

15 Toronto St., TORONTO

Mills at FESSERTON, ONT.

JOHN DONOGH & CO.

Wholesale Dealers

—DRY STOCK—

WHITE PINE—

Inch Mill Cull Sidings. 2 x 8 & 2 x 12 Common and Dressing.

SPRUCE—

1 x 4-5-6-7, Common and better. Rough or Dressed.

1205 TRADERS BANK BUILDING, TORONTO

C. A. Larkin Lumber Co.

Limited

Wholesale

Pine and Spruce Lumber
B.C. Red Cedar Shingles
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Ontario White Cedar Shingles

Toronto :: Canada

Do You Want a Salesman?

¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

LEAK & CO., LIMITED

18 Aberdeen Chambers

TORONTO, ONT.

We are in the market for Hemlock, Spruce and Hardwoods, also No. 1, 2 3 Lath.

Send us list of anything you have to offer.

Spears & Lauder

OFFER

One Million feet, Birch, Basswood, Ash, Elm and Maple

now being cut from exceptionally choice logs.

Also during the Summer months 2½ million feet of hemlock.

LET US QUOTE YOU ON YOUR REQUIREMENTS.

Head Office: 501 Kent Bldg., - TORONTO

The

Elgie & Jarvis Lumber Co.

Limited

18 Toronto St., TORONTO, ONT.

We offer for prompt shipment,—

5 to 8 cars, 5/8 Pine or Spruce Crating.
4 to 5 cars, 1½ x 10 & 12 Selected White Pine
4 to 5 cars, 2 x 10, 10 16 No. 1 Spruce
10 to 15 cars, 1 x 10 & 12 No. 1 White Pine Mill Cull
2 cars, 2 x 4 & up, Clear and Clear Face Norway

Close prices for prompt shipment.

C. G. ANDERSON LUMBER CO.

WANTED

Mill Stocks of :—

HARDWOODS
PINE
SPRUCE
HEMLOCK

We are now buying for the 1912 trade. Write us describing Stocks you have, or will have to sell. We pay CASH.

Manning Chambers TORONTO

E. H. Heaps & Co., Limited

Lumber, Shingles, Doors, Mouldings, Finish, etc.

Specialties: AA1 BRAND HIGH GRADE SHINGLES
B. C. R. DOUGLAS FIR TIMBER

Mills at
Vancouver and Ruskin, B. C.

Head Office: Victoria Drive and Powell St.
VANCOUVER, B.C.

For low prices and prompt shipment of

Yellow Pine Timbers
Short Leaf Finish
Chestnut --- Oak --- Ash
Cypress
New Brunswick Shingles

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Fred S. Morse Lumber Co.

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J. M. Clifford & Co.

Manufacturers and Dealers in
all Kinds of

Hardwood Lumber

Poplar Basswood Cypress Elm Oak Ash Maple

We have a full stock of the above thoroughly air dried. Complete line and high grades. Prompt shipments on mixed cars.

Best Quality Uniform Grades Low Prices

GET OUR QUOTATIONS BEFORE BUYING

Detroit - - Mich.

Pine Larch

THE HALL MARK OF QUALITY

Selects
Shops
Commons
and
Mouldings

Timbers
Yard Stock
Clears
and
Mouldings

The East Kootenay Lumber Co.
Limited

Head Office: JAFFRAY, B.C.
Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

The Fernie Lumber Co., Limited

Manufacturers and Dealers in all kinds of

Fir, Cedar, Spruce and Larch
Rough and Dressed Lumber

Dimensions and Bridge Timber a specialty

Cedar Telegraph and Telephone Poles

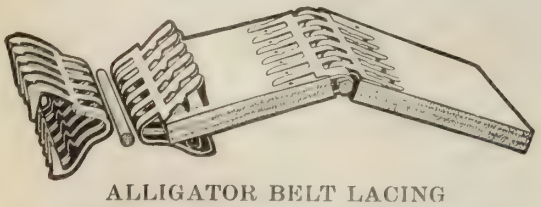
We have a Special Stock on hand for immediate Shipment

FERNIE B.C.

"LIMESTONE" Wood Split Pulleys

The Strongest Wood Pulley Made. NAILED and GLUED

We carry the largest stock of Wood Pulleys in the Country.



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Also Lukenheimer Valves, Lubricating Oils and Greases, Packings, Hose, Paints, etc.

Rush Orders Promptly Filled. Belting in Stock 1-in. to 20-in.

LARGE BELTS A SPECIALTY

Crescent Oil Co., Hamilton, Ontario

D. S. PATE LUMBER CO.

MANUFACTURERS OF

Yellow Pine

OUR SPECIALTIES:

Long Leaf Timbers and Implement Stock.
Short Leaf Finish.

Stock Exchange Bldg. - Chicago, Ill.

Lumber of Uniform Quality

Fassett Lumber Co.—General View of Saw Mill

Standard uniform quality is the Keystone of our success. If you are not acquainted with the superior merits of our lumber let us send you a sample car of

PINE, HEMLOCK
SPRUCE or
HARDWOOD

We have also a splendidly equipped planing mill and dress lumber to order.

LONG TIMBERS
A Specialty.

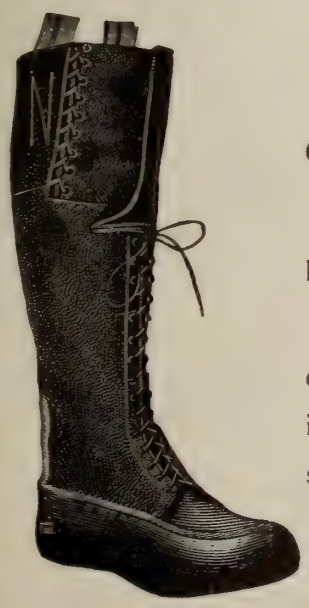
Fassett Lumber Company, Limited

FASSETT, QUEBEC

PENETANG SHOEPACKS

Gendron Penetang Shoepack Mfg. Co.

Sole Manufacturers, Penetanguishene, Ontario



TO THE TRADE

Gentlemen :—

We take this opportunity to advise you that shoepacks must necessarily advance in price in the near future, owing to the great advance in hides and leathers of all kinds.

We would ask you to place your order for fall at once, as we anticipate a larger demand than ever, and although we have made preparations for almost double the increase in our output, those of our customers who neglect placing orders, may be disappointed in shipments, besides running the risk of having to pay the advanced prices.

Yours truly,

GENDRON PENETANG SHOEPACK MFG. CO.

FOR QUICK SHIPMENT

we offer the following stocks

A few cars left of:

5/4 x 6/8/10 No. 1 and 2, Barn
6/4 x 6/8/10 No. 1 and 2, Barn
200M 1″, 1½″ and 2″ x 12—12/16 Spruce
100M 3 x 10—10/16 Spruce
1″ x 4″, 5″ and 6″ No. 1 and 2, Barn
1½″ x 4″, 6″, 8″ x 10″ No. 2, Barn and Better
From Small Logs

1″, 1¼ and 2 x 4,—10/16′ Spruce, rough or dressed
“ “ 2 x 5, “ “ “
“ “ 2 x 6, “ “ “
“ “ 2 x 7, “ “ “
“ “ 2 x 8, “ “ “
“ “ 2 x 10, “ “ “
“ “ 2 x 12 “ “ “

A choice lot of 1″ Ash and winter sawn 1″ Basswood; also Birch Flooring in all grades and thicknesses.

We can supply you all your wants in Pine.

DRESSED LUMBER OUR SPECIALTY

Write, wire or 'phone us for prices before placing your orders.

W. C. Edwards & Co., Limited

Ottawa, Ont.

Mills at Ottawa and Rockland **Planing Mills and Factories at Ottawa**

“EVERYTHING IN LUMBER”

Why not make 1912 the most profitable saw year in your history?

ATKINS STERLING BAND SAWS

Made in Canada

THESE Saws are celebrated on account of their exceedingly tough temper and generally scientific construction. They will stand up to their work longer under the most trying conditions. You will find fewer cracks in ATKINS BAND SAWS than any other and they will hold their teeth and points remarkably. Why not place a trial order and make us prove these statements.

Write to-day

E. C. ATKINS & CO., Makers of STERLING SAWS **HAMILTON, ONT.**

Vancouver Branch, No. 109 Powell Street, **U. S. Factory, Indianapolis, Ind.**

Pine Doors of All Kinds

KEPT IN STOCK FOR IMMEDIATE SHIPMENT

The above is a partial line of Doors carried in stock in all the standard sizes for quick shipments.
We are the largest manufacturers of Doors in Canada and operate our own sawmill and timber limits.

We can save you Time and Money. Write us.

JAMES DAVIDSON, - OTTAWA, Ontario

GARLOCK PACKINGS

Garlock Regular Rings

For all general purposes outside of high pressure work. This Packing is a special grade thoroughly lubricated with the celebrated "Garlock" compound, and is the perfected result of over thirty years experience in manufacturing fibrous Packings.

Garlock Square Duck Packing

Made of good quality Cotton Duck and friction for cold water.

Garlock High Pressure Gaskets

Absolutely heat proof, will not vulcanize or blow out under any steam pressure, being made of long fibre Asbestos Brass Wire Insertion.

Garlock Red Sheet Packing

Made of high grade Rubber compounded in such a way as to give it great strength and reliability.

This Packing has established wide reputation on its own merits.

Garlock Cloth Insertion Sheet

Used on cold and warm water pipes. Is unexcelled in pliability, smoothness of finish and strength of Cloth Insertion.

Garlock Rubber Valves

Specially made to meet specific conditions—absolutely unaffected by oils.

Before placing your next order for supplies get our prices on Leather, Rubber and Canvas Belts, Hose, Brass Valves, Babbitt Metals, Saw Blades, Files, Emery Wheels, etc. A full stock carried at our Western Branch, 117 Market St. East, Winnipeg. Write for catalogue.

THE GARLOCK PACKING CO.

Head Office and Factory: HAMILTON, ONT.

MONTREAL TORONTO WINNIPEG

MARITIME PROVINCES

Maritime Lumber Co.
Limited

Head Office:
Saint John, N. B.

Branch Office:
180 St. James St. Montreal, P. Q

OFFER

For Rail or Water Shipment:

1,500,000-ft. Merchantable Spruce Side Boards 1 x 4 and up.

For Rail Shipment:

600,000-ft. 3x7 and up 1st., 2nd. and 3rd. White Pine.

Donald Fraser & Sons, Limited

CABANO, QUEBEC

MANUFACTURERS OF

Long Lumber

Rough and Finished

Shingles, Clapboard,
etc.

To Reach More Lumber Buyers

Canadian lumber manufacturers and wholesalers should advertise regularly and prominently in the

Canada Lumberman & Wood Worker

This paper reaches all the principal buyers of Canadian lumber at home and in Great Britain, United States, Europe, South America.

Rates on application to the head office.

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High Grade

N. B. Cedar Shingles

Spruce and Pine Lumber Lath
Rossed Pulpwood

Dalhousie Lumber Co., Limited
Dalhousie, New Brunswick

Agents for Ontario **R. Laidlaw Lumber Co., Limited**
Toronto, Ontario

Selling Mill Stock

If you desire to get beyond the retail dealer and reach the builder and the architect it will pay you to advertise in the

Contract Record
and Engineering Review

the only weekly paper in Canada for builders, architects, etc.

Send for sample copies and rates to the publishers

Hugh C. MacLean, Limited
Toronto, Ontario

MARITIME PROVINCES

It is Better to Buy

the best; this applies to anything one needs, but especially do you require

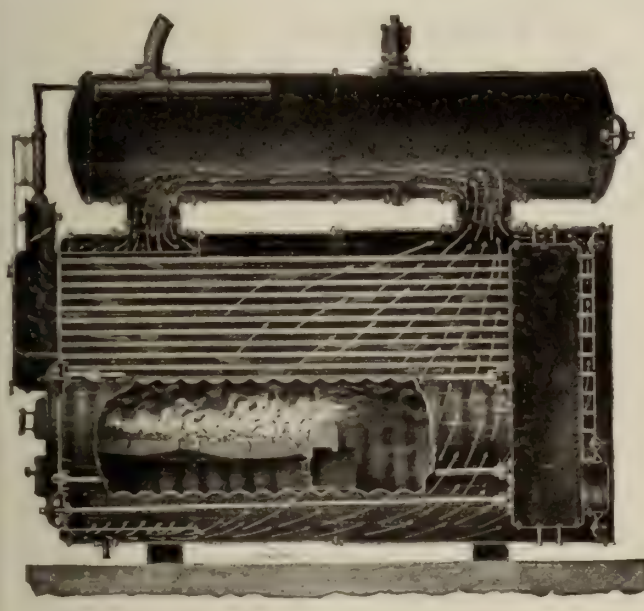
Good Machinery and Supplies

The best is none too good, at any time, and while it perhaps costs a little more at the start, it is the cheapest in the end. The price paid for a cheap article, is probably not only all it is worth, but a great deal more, so it is wiser to get the best,

Than to Wish You Had

Think it over, then send to us.

AUSTEN BROS., Limited, Halifax, N.S.



The Internally Fired Scotch Marine Boiler Now Available for Plants Ashore

It changes the sluggish flow of water into rapid circulation and does it without a pump or other device.

Rapid, positive circulation is the chief feature—others are: cylindrical combustion chamber which eliminates crown bar or girder stays; less cost because two small thin shells take the place of the one large drum, and the staying is simple.

Ask for Bulletin No. 3.

ROBB ENGINEERING CO., LTD.

WORKS:

SO. FRAMINGHAM, Mass., AMHERST, N.S., Can.

Manufacturers of Engines, Water-tube Boilers, Horizontal Return Tube Boilers, Vertical Boilers, Shaking Grates, etc.

39—15

WE LEAD IN MILL SUPPLIES

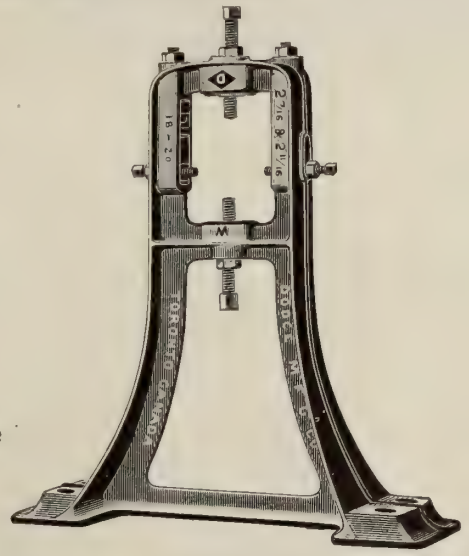
IN THE MARITIME PROVINCES

We can equip your mill with everything you require and at lowest prices.

Transmission Goods:

Pulleys, Hangers, Shaftings, Etc.

Crane or Pipe Fittings



Leather, Rubber and Canvass Belting

Steam Packings

Our stock has been carefully selected and the quality is guaranteed.
The manufacturers we represent are those whose names are a guarantee of the quality of their output.
We carry a complete stock and can fill orders promptly.
We are satisfied with a fair profit and give you the benefit.

GIVE US A TRIAL

GUILDFORD & SONS, Halifax, N. S.

The Enterprise Lumber Camp Range

A Large Heavy Serviceable Steel Range, specially adapted for Lumber, Mining, and Railway Construction Camps, Boarding Houses, etc.

MADE IN TWO SIZES

The largest No. 10—30 has an oven 30×26×14 and six 10 inch covers. The oven of the 9—24 measures 24×26×14. The Tops of both are made of three heavy interchangeable Key plates. Both sizes can be fitted with waterfronts and the 9—24 with a 15 gallon copper reservoir tinned on the inside to prevent rust. Size of pipe collar 7½ inches. Length of wood fire box 31 inches. The body is of very heavy Bessemer Sheet Steel and is well braced and strengthened. Castings are made of the highest grade of pig iron.

Burns Coal, Coke or Wood **Send for Illustrated Circular**

The Enterprise Foundry Co., Sackville, N. B.

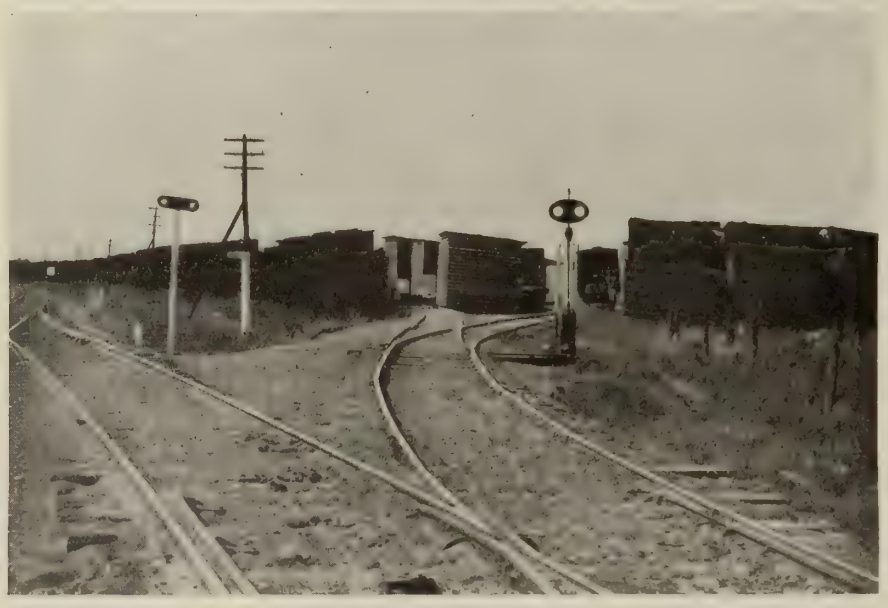
Mfrs. of High Grade Stoves, Ranges, Furnaces and Fire Place Fittings

Sold by: Fred J. C. Cox & Co., Winnipeg, Calgary, Edmonton. Enterprise Hardware Co., Saskatoon. W. T. McArthur & Co., Vancouver

Place Your Dimension Orders Early

White and Red Pine, Spruce, etc., Bills, any Size, any Length

ROUGH OR DRESSED



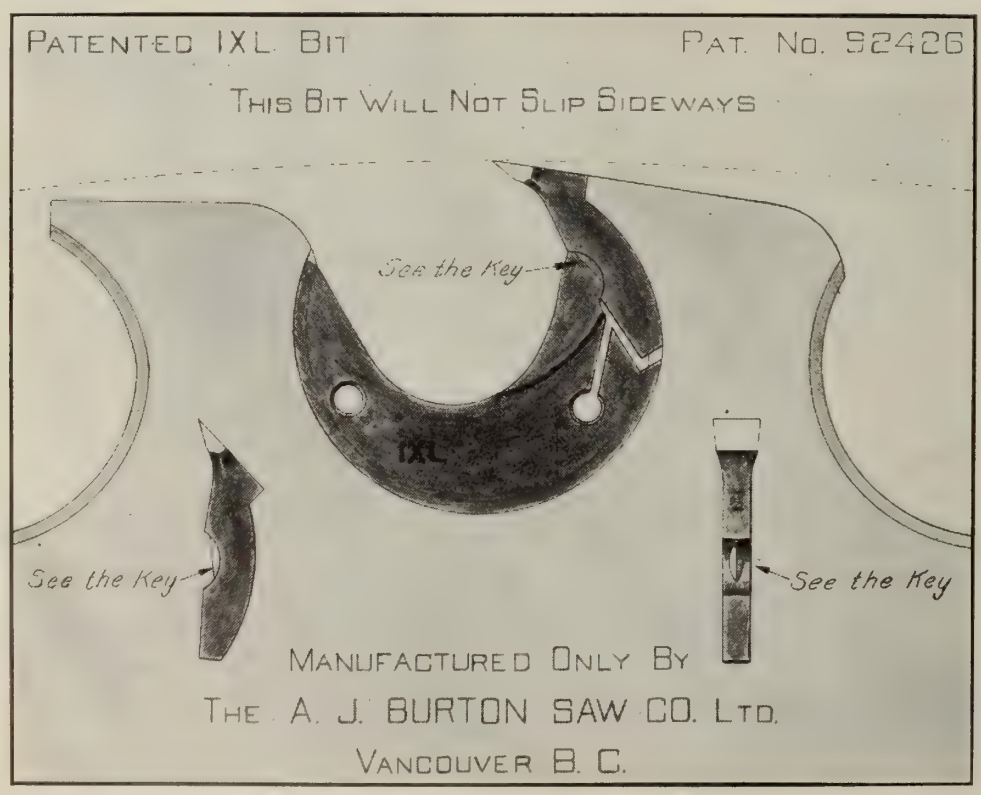
East Entrance, No. 2 Yard

We still have a few cars each dry 1 x 12, 1½ x 12 and 2 x 12 x 12/16 for sale.

Fast Feed Planing Mill in Connection

The Colonial Lumber Co.

Pembroke, Ont.



Our Inserted Saws are Fitted with our Patent I.X.L. Bits and Shanks, warranted not to slip sideways, and to cut free and easy, and have no equal in hardwood or any other timber.

Saws Band, Gang, Solid and Inserted Tooth Circulars, Bits and Shanks

Carried in Stock at our Ottawa Branch. Special Attention given to all Saw Repair Work.

The A. J. Burton Saw Co., Ltd.

HEAD OFFICE AND FACTORY
VANCOUVER, B. C.
BOX 848
Phone 1748

EASTERN OFFICE, SALES-ROOMS AND REPAIR WORKS
374 Sparks St., OTTAWA, ONT.
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HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

Phone Main 6386

Mills: Knoxville, Tenn.
Walland, Tenn.
Franklin, Va.

The Atlantic Lumber Co.

Incorporated

Head Office: BOSTON, MASS.

Manufacturers Southern Hardwood Lumber

Canadian Branch

211 Kent Building, 156 Yonge Street, Toronto
Robert Vestal, Manager

ANYTHING IN OAK LUMBER

We have the following stock we are anxious to move, let us quote you on it:

250,000 ft. 1 in. No. 2 Com. and Btr. Basswood
1,000,000 ft. 1 in. No. 2 " " Hard Maple
40,000 ft. 1 x 4 in. 1 face and 2 faces Clear Birch Strips
50,000 ft. 2 in. 1sts and 2nds Unselected Birch
400,000 ft. 1 in. No. 1 Com. Unselected Birch
50,000 ft. 1 in. No. 2 Com. Unselected Birch
100,000 ft. 1 in., 10 and 12 ft. Moulding Birch

Other Northern Hardwoods in complete assortments

BRADLEY TIMBER & RAILWAY SUPPLY CO.
Second Floor Palladio Bldg., DULUTH, MINN.

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

Wistar Underhill & Nixon

Real Estate Trust Bldg., Philadelphia, Pa.
Canadian Rep. - W. J. Anderson, 288 South St., London, Ont.

Pearl City Veneer Company

JAMESTOWN, N.Y.

Manufacturers of

Veneers and Panels

IN ALL THE NATIVE WOODS

Three Ply End Panels, Drawer Bottoms and Glass Backs a Specialty

LET US QUOTE YOU PRICES

Factory and Office, Steele St., Jamestown, N. Y.

Our shipping facilities for Canadian Trade cannot be equalled.

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buy your Hardwoods direct from

THE MANUFACTURER

Can Furnish Anything In---

Kentucky's Best

Quartered White Oak
Quartered Red Oak
Plain White Oak
Plain Red Oak
Poplar
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Hickory
Ash

Mixed cars furnished at same prices as straight cars.

J. V. STIMSON & CO.,

OWENSBORO, Kentucky

Yellow Poplar

MANUFACTURERS WATER SEASONED, BAND SAWED
POPLAR LUMBER

All Grades Quick Shipments

COAL GROVE, Ohio, U.S.A.

Lumber Co.

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United States Manufacturers and Wholesalers seeking Canadian Business

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Manufacturer of

SOFT OAK

Mills: WILMINGTON, O. / FRANKFORT, KY. / SALISBURY, N.C.

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Manufacturers of Foreign and Domestic Hardwood Lumber and Veneers.

Ohio Veneer Company

— Importers of —

MAHOGANY AND FOREIGN WOODS

Office and Mills: **2624 to 2634 Colerain Ave., CINCINNATI, OHIO.**

R. A. Wells Lumber Co.

Wholesalers and Exporters of

Hardwood Lumber

of All Kinds

Special attention to Canadian trade. Prompt Shipments

Our speciality is 1″ to 2″ Gumwood, 1″ to 2″ Oak, both plain and quartered stock, 1″ to 2″ Ash and 1″ Cottonwood.

WRITE US BEFORE BUYING

230 S. LA SALLE STREET - CHICAGO, ILL.

THE SOUTHERN LUMBER AND BOOM CO.

SALES OFFICE, CINCINNATI

Band Mills: Valleyview, Ky., Glendora, Miss.

Manufacturers

OAK	GUM
POPLAR	CHESTNUT
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Lower Michigan Hardwoods

Rock Maple, Beech, Birch, Basswood and Ash, White Rock Maple Flooring and Hardwood Dimension

We have four large mills, sawing the year round on Virgin Hardwood Timber. We can furnish you any standard grade or thickness. We own our own fleet of boats and can make water shipments. Send us a list of your wants. We can serve you best.

W. H. White Company — **Boyne City Lumber Co.**
Wholesale Yards at Buffalo, N.Y.
Mills at Boyne City, Michigan

Duhlmeier Brothers Manufacturers Hardwood Lumber

MILLS { Kentucky, Tennessee, Mississippi.

Main Office and Yards { **CINCINNATI, OHIO**

We now have in stock dry and ready for prompt shipment 500,000 ft. of 1-in., 1¼-in., 1 1/2 and 2-in. plain Red Oak, nice soft texture, good widths, good lengths. Also a nice stock of Red and Sap Gum, Plain and Quartered Cut Oak. Let us quote you delivered prices.

OUR LUMBER IS MANUFACTURED RIGHT AND GRADED RIGHT. WE CAN SHIP QUICK.

Eastern Representative **James H. Walsh,** 95 W. Mohawk St., Buffalo, N. Y.

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United States Manufacturers and Wholesalers seeking Canadian Business

Long-Knight Lumber Co.

Manufacturers Indiana and Southern

Hardwoods

OAK, ASH, CYPRESS Our Specialties

Address all inquiries to the Main Office at--

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Theo. Fathauer W. M. Hopkins

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WHOLESALE HARDWOOD LUMBER

Our Specialties

Plain and Quartered White Oak. Figured and Plain Red Gum

Southern Yard - **Helena, Ark.**

Address correspondence to

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YARDS: ORLEANS, IND.: FORT WAYNE, IND.: PAOLI, IND.

S. P. Coppock & Sons' Lumber Co.

Manufacturers of and Dealers in

Hardwood Lumber

Indiana Quartered Oak
Ash, Basswood, Poplar

Main Office - FORT WAYNE, IND.

OUR SPECIALTY:

Anything in HICKORY LUMBER

Canadian Representative, MR. S. D. SMITH

W. M. Ritter Lumber Co.

MANUFACTURERS

Columbus : : Ohio

Band-sawed West Virginia Soft Yellow Popular, Basswood, Chestnut, Red and White Oak, all grades and thicknesses in stock, dry.

No Mixed Grades

We ship the product of our own mills only which produce annually over 100,000,000 ft.

Send us your inquiries direct or communicate with our Ontario Representative

John Hall, 266 Huron Street, Toronto, Can.

Phone College 907

W. O. King & Co.

HARDWOOD LUMBER

Our Specialties

Michigan Hard Maple, Birch and Basswood

2452 S. Loomis St., CHICAGO, ILL.

DRY BEECH

We want to move 200,000 feet 5/4—No. 1 and better dry Beech. A Snap at the Price.

Also quick deliveries on NORTHERN HARDWOODS, YELLOW PINE, OAK DIMENSION, FIR, HICKORY, OAK, CAR STOCK and PILING.

Estabrook Skeele Lumber Co.

Manufacturers and Wholesalers

CHICAGO, ILL., U. S. A.

Bathurst Lumber Co.

Limited

Bathurst, N.B.

Located on Bathurst Harbour for Water Shipment and on Main Line Intercolonial Railway for Rail Shipment.

Reach Any Market in the World

OWN two large modern saw mills of large capacity and carry always in stock a large assortment of dry white pine and spruce.

Write for our monthly stock list giving full particulars of our lumber ready for shipment

Now Ready to Load in Dry Stocks

500000	feet	-	1 x 5 x 10	feet	and	up
500000	"	-	1 x 6 x 10	"	"	
500000	"	-	1 x 7 x 10	"	"	
500000	"	-	1 x 8 and up x 10	"	"	
250000	"	-	1¾ x 6 " x 10	"	"	
250000	"	-	1¾ x 8 " x 10	"	"	

President and General Manager D. C. CAMERON, Winnipeg
Assistant General Manager WM. ROBERTSON, Vancouver
Secretary-Treasurer, WILSON BELL, Winnipeg

The Rat Portage Lumber Co. Ltd.

Manufacturers of

Fir, Cedar and Spruce

LUMBER

Cedar Shingles, Fir and Cedar Lath

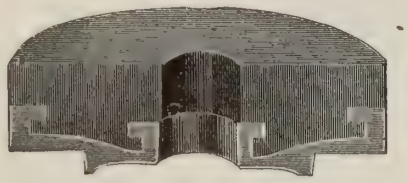
Car Sills and Sheathing, Cedar Siding

Large and Long Timbers
for heavy construction work

Vancouver, B.C., and Harrison River, B.C.

Pump Valve Service

Almost any pump valve will give good service while quite new, but the true test is in the duration of life.



L. R. & B. PUMP VALVES

retain their high efficiency longer than any other. The very best quality rubber used in these valves has been proved to outlast all others. When wear takes place the rubber can be refaced until the brass casing is reached thereby giving full use to all the rubber. The brass casing also prevents ports from forcing through. The good service and economy of these valves is being proved in thousands of plants—we will prove it to you too.

A complete line of all mill supplies carried in stock

The Asbestos & Rubber Goods Co.

Limited

141 King St. East
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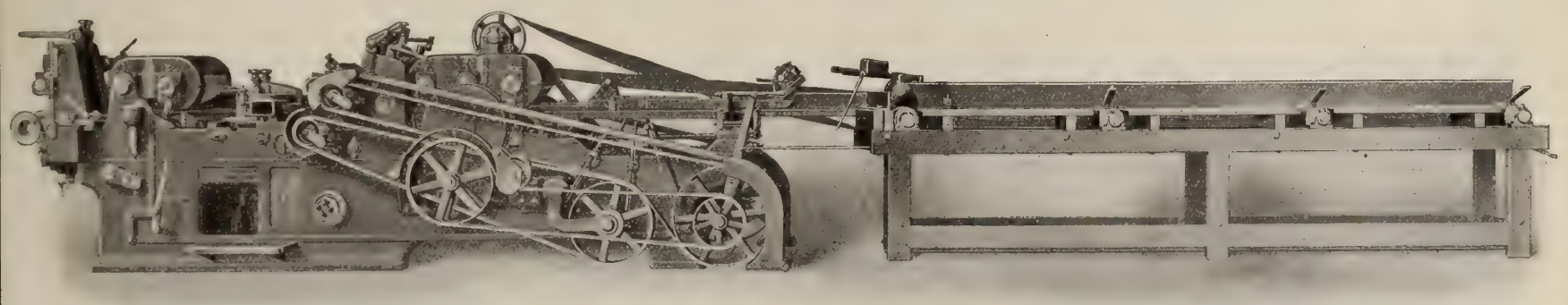
522 Board of Trade Bldg.
MONTREAL, P.Q.

EVENTUALLY ONE OF "THE PLANERS OF WOODS" WHY NOT NOW?

It makes no difference whether your stock is knotty or cross grained, you obtain the highest grade production at fastest rates of feed. With our Automatic Feeding Table any feeder operating one of "The Planers of Woods" makes the output equal the machine's rating. Send for our No. 400 series Matcher Booklet. It tells you about it.



(Front View) WOODS No. 404 HIGH SPEED Planer and Matcher with an AUTOMATIC FEEDING TALE—CAPACITY 200 to 300 LINEAL FEET PER MINUTE

Feeding table patent applied for

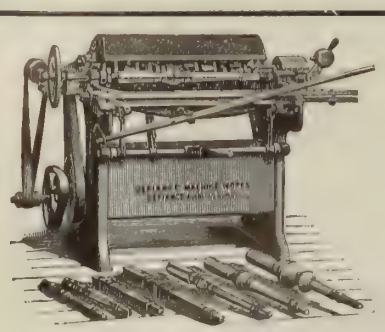
S A WOODS MACHINE CO

BOSTON U S A

New Orleans
Norfolk

San Francisco (Eby Mchy. Co.)

Seattle
Chicago



Patent Variety Lathe

THERE ARE NO FAULTS TO BE FOUND IN

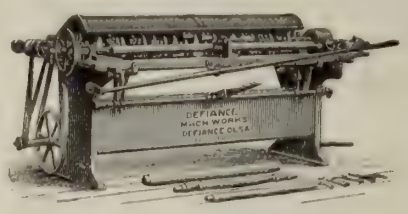
DEFIANCE

WOODWORKING MACHINES

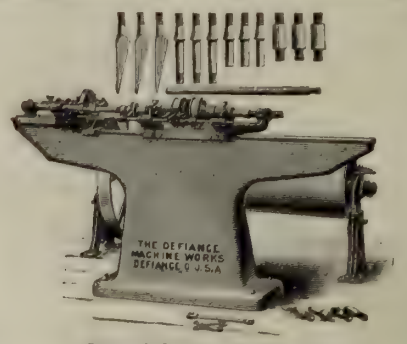
THE IMPRINT OF SATISFACTION

They have every qualification that is required by the critical manufacturer

ECONOMY SERVICE SATISFACTION



72 in. Turning Lathe



Thread Cutting Machine

Only perfect work is produced by DEFIANCE machines. Give us a trial order and we will prove all the claims made by us for our tools. We guarantee them to do your work or they do not leave our factory. Write us for catalog and prices.

The Defiance Machine Works

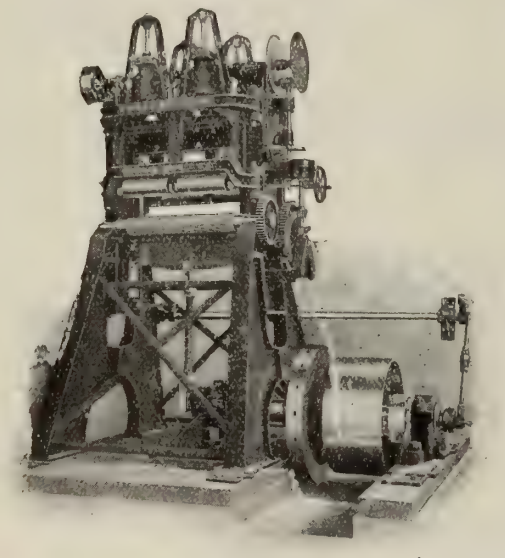
426 Perry Street - DEFIANCE, OHIO, U.S.A.

Canadian Agents:—The A. R. Williams Machinery Co., Toronto, Agents for Ontario, Williams & Wilson, Ltd., Montreal, Que. A.R. Williams Machinery Co., Ltd., St. John, N B. (New Brunswick, P.E.I.) Guilford & Sons, Halifax, N. S. The Angel Engineering & Supply Co., St. John's, Newfoundland. W. L. Blake & Co., Portland, Me. (Maine, New Hampshire, and Vermont.)

BUILT BY SPECIALISTS

We are specialists in Gangs. Our product has been the acknowledged standard for forty years. We have built good gangs all of that time. We're improving them all the time. **Get the latest and best.**

There is no would-be or may-be about Wickes Gangs. They are made by people who know the business from A to Izzard, and who stop for no expense of money, time or labor that will make Wickes Gangs better in any sense.



We've a design and size of gang for every requirement.

Tell us your problem and let us show you what possibilities the Wickes Gang holds for you.

A Gang for Every Need

WICKES BROS. SAGINAW, MICH.

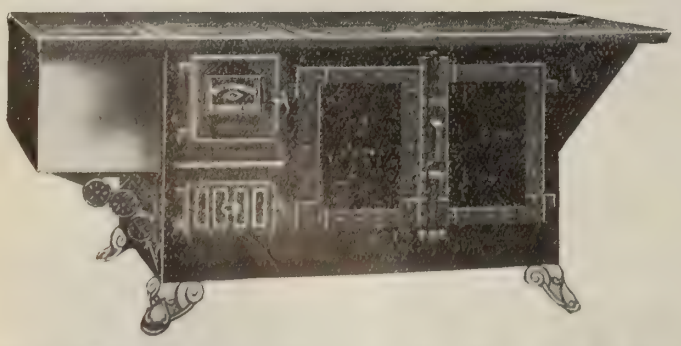
Seattle Office: 410 White Bldg.

YANKEE PATENT REMOVABLE SPLIT-RIM SPROCKET

SOMETHING NEW IN SPROCKETS

The removable rim does away with removing Sprocket from Shaft. To renew, unbolt two halves of old rim, and replace with two new halves. You only buy the Rim, at one-third cost of new Wheel. Done in one-fifth the time compared with Standard Sprocket.

The A. M. ELLICOTT CO., Montreal



Diamond Shanty Steel Range—Six Holes. Length of fire box for wood 28 in. Size of oven 24 x 27 x 15 in. Flush reservoir as cut or high reservoir. Made of extra heavy steel closely riveted. Malleable oven door frame.

For the Camp

Camp Cooking and Baking with our Diamond Shanty is an absolute certainty, no guess work, meals always on time.

When you buy these goods you get our 30 years manufacturing experience.

A handsome Illustrated Catalogue is yours for the Asking

In three sizes, 36, 42, and 48 inches long.

Butterworth Foundry, Limited Ottawa, Canada.

Power-Saving, High-Efficiency Belts

For Planers, Dynamos, Generators, Fan Work, Etc.

A Few of the Lines We Manufacture

Make your power transmission an **asset** instead of a **liability**—a money-saver instead of a power-waster. Belt your machinery with

GOODYEAR

Imperial

High-Speed, Friction-Surface

BELTS

"The Belt That Clings"

Built the famous Goodyear way, for high-speed pulleys where great tensile strength is demanded

The Imperial has the cling of rubber and the endurance of many plies of hard-twist, long-fibre **cotton fabric,** rubberized, cured and vulcanized into one solid, enduring piece.

Earns Cost—Costs Less

The Imperial Belt is a power saver. It earns its cost by turning into increased production the power and the time lost by slippery leather belting. And it costs less.

Wears Longest Without Stretching

Most economical because it wears longest.—First, because it doesn't slip. Secondly, because it is made by a process that abolishes **internal friction.** This soon wears the life out of the best leather belting and is caused by internal **grinding** as the belt bends and whizzes around small-high-speed pulleys.

Instead of a few plies of coarse fabric, we build up the Imperial with many plies of fine fabric. After the **stretch has all been taken out,** rubber is forced through and all threads are separated from each other. Thus they can't rub and chew themselves, and the cause of internal friction is eliminated.

These belts are built to suit the purchaser. Let us quote prices on this most durable and economical high-speed, friction-surface, wear-resisting belting.

We also make other rubber products—Tires, Hose for all purposes, Sheet Rubber Packing, etc. Throughout, you get the same high quality materials, skillful workmanship and years of experience that have built such famous service into products of the Goodyear Tire & Rubber Co., Akron, Ohio, U. S. A. Our sales of the last four months 50% greater than those of last year. Defective goods returned only $23.93. Write us at once.

The Goodyear Tire & Rubber Company of Canada, Ltd.

Factory—Bowmanville, Ont.

Write Our Nearest Branch

BRANCHES: Victoria, B. C.—Vancouver, B. C.—Calgary, Alta. —Regina, Sask.—Winnipeg, Man.—London, Ont.—Hamilton, Ont.—Toronto, Ont.—Montreal, Que.—St. John, N. B.

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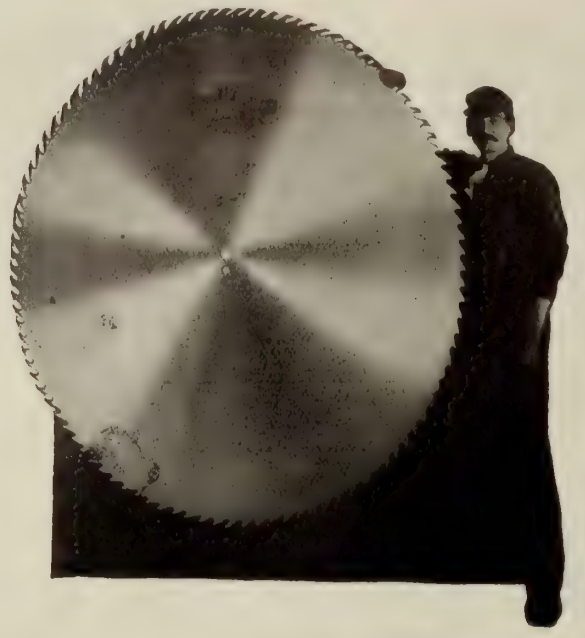

Simonds Saws

All there is to a Saw is STEEL, SKILL and STYLE.

The Steel that is in a Simonds Saw has meant that to supply it we had to build a Steel Mill comprising seven buildings which, with yards, cover 14 acres of land. This much for the demand for Simonds Steel.

The Skill that is in a Simonds Saw requires for its operation three complete factories, one at Fitchburg, Mass., one at Chicago, Ill., and one at Montreal, Que. The skill is the result of noting and accepting improvements in methods of Making Saws, as long as Saws have been made in this country.

The Style that is in a Simonds Saw comes from a close study of the style of Saws necessary for best cutting results under varying conditions. Years of experience in the Saw manufacturing business has developed an ability to select the right Saw for any particular use.

The Price that the Consumer pays for a Simonds Saw entitles him to the benefits of Simonds Steel, Skill and Style, these three together giving results or service which means profit.

If you are in the market for any kind of a Saw, Planing Knife, or file. send your order to our nearest office for our immediate attention.

Simonds Canada Saw Co., Limited

Montreal, Que.

Vancouver, B.C. - - St. John, N.B.

In the United States The Simonds Mfg. Co.

J. F. EBY
President

HUGH BLAIN
Vice-President

CAMP SUPPLIES

If you are looking for QUALITY in your Camp Supplies, you should specify:

"ANCHOR" brand—

BAKING POWDER
JELLY POWDERS
EXTRACTS, SPICES
COFFEE — TEA
(In sealed air tight packages)
Sweetened MILK Unsweetened
CANNED—
SALMON, FRUITS
and VEGETABLES

The Quality Is Guaranteed The Best It Is Possible To Produce

WE CARRY A FULL RANGE OF CAMP SUPPLIES

Wholesale Grocers **EBY-BLAIN, LIMITED** Importers and Manufacturers

TORONTO

A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

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A Preference for Canadian Lumber

The details recently made public regarding the agreement for reciprocal trade preference between Canada and the British West Indies render it practically certain that the agreement itself will be ratified by all parties concerned. To the people of the Maritime Provinces the agreement is of great importance and it is looked upon as the beginning of a great development in trade between Canada and the British West Indies. So far as the lumber trade of Canada with the British West Indies is concerned, there will be some benefit as a result of the agreement, although comparatively speaking it will be slight. The most important market for Canadian lumber in the West Indies is Barbados, and the total shipments to that island only amount to between four and five million superficial feet annually. It is interesting however, to note the actual results which are likely to follow the agreement.

At present the duty on lumber entering Barbados is $1.20 per thousand feet. On lumber entering Trinidad the duty is $2 per thousand feet. The reciprocity treaty will give Canada a preference of at least 20 per cent. The new duty for Barbados will therefore be 96 cents per thousand feet at most and for Trinidad $1.60 at most. It is understood that the agreement is to go into effect on January 1st, 1913.

The Maritime Provinces have practically enjoyed a monopoly of the lumber trade with the West Indies for a long time. Years ago, when our lumber was secured from large logs, an attractive profit was made in the trade but the conditions to-day are far less favorable. To account for this, it is necessary to consider the conditions under which the trade is carried on. The West Indian merchants insist upon their purchases being based upon the same system of measurement as that which was in vogue when larger logs were secured and larger sizes of timber were easy to obtain. The West Indian method of surveying or estimating lumber in fact, is based on conditions which no longer exist. To-day our logs are smaller and are cut into shorter lengths than formerly. The West Indian merchants buy one-inch lumber only and they demand that merchantable lumber shall contain at least 10 feet per board, a specification which is difficult to get to-day. Not being able to get much lumber of this size, the merchants insist upon a discount from the price in proportion to the amount of under size. When one who is not experienced in the West Indian trade first sees an offer for Canadian lumber it strikes him as a handsome price, but when the shipment has been subjected to the West Indian survey the original price looks like a delusion.

Having a practical monopoly of this trade it seems peculiar at first that Canadians should put up with these conditions. The truth of the matter however, is that lumber shipments are often made as a part only of a cargo for the West Indies and that the most valuable cargoes in the West Indian trade are those which come to Canada from these islands. Under such conditions Canadian merchants are glad to get a cargo of any sort for their vessels on the return trip. Whether prices for lumber are good therefore, or not, it pays to ship lumber and other Canadian products to the West Indies, so as to give the vessels a return load.

Under the new reciprocal trade arrangements it is more than probable that Canada will secure a great deal of the West Indian trade in flour and other products which hitherto has gone from New York. Our return cargoes are therefore likely to occupy a more important position comparatively speaking than they do at present and, with a better steamship service between Canada and the West Indies, the whole system of trading is likely to undergo important changes. In this connection it is interesting to note that credible reports state that the government intend to call for tenders for an improved steamship service and that the C.P.R. is credited with an intention to tender. It is possible that the Quebec Steamship Company which at present handles a great deal of the United States freight for the West Indies will have to transfer its business to Canadian ports. Altogether the reciprocity agreement involves many interesting developments for the people of the Maritime Provinces, and the lumber trade, though small will be effected proportionately with the others. One cannot help wondering who will benefit from the reduction in the duty on lumber. In the absence of competition, the chances of the consumer securing the benefit seem slight. The importer or the shipper seem likely to share it, in proportion to the urgency of the demand, and as the shipper in Canada has not made much out of this trade in the past, he may entertain some hope of getting better terms, when the duty is less.

The Cost of Selling Lumber

Within late years a quiet but important change has been coming over the methods of selling lumber, a change which has a definite and vital bearing upon the present situation and the future development of the lumber industry. It is not many years since a number of the most important lumber firms in Canada sold most of their lumber by correspondence. They were able to advise their regular customers that they had certain classes of stock for sale at certain prices and to depend upon receiving orders for a large block of stock in reply. Large quantities of lumber, involving sometimes the whole cut of a mill, were disposed of in this manner. Some firms have been able to continue the same practice up to the present, largely as a result of the good will which they have established among their customers by the quality of their lumber and their business-like methods of carrying out their contracts to supply stock. The cost of selling lumber in this manner was a great deal less than the cost of placing travellers upon the road or of selling through the wholesale houses and giving a commission upon all stock sold.

Conditions which prevailed in the earlier days of the lumber industry in Canada favored this method of business. Business methods, however, have passed through a period of evolution which has been coincident with the extension of transportation facilities. The change has been a natural one growing out of natural alterations in our ways of living and it has brought with it a growing dependence upon personal effort to secure and keep customers, which would have

been considered a waste of time and energy in earlier days. Not that there is any more natural politeness in the business methods of to-day. The balance in this regard is probably on the other side, but competition has grown so much keener that politeness and keenness have become more important factors in successful selling than they used to be. Intensive methods of selling have come into general use along with the increased production rendered possible by the great improvements which have taken place in the productive capacity of machinery. Increased production and a widening of the demand for lumber have produced a far more sensitive nerve organism in the business world. This sensitiveness is seen particularly in the readiness with which market conditions are affected by adverse or favorable conditions. We are in touch with conditions in all parts of the world and are able to learn of market conditions with wonderful facility. This was a factor in bringing about the depression which was so widespread during 1907 and 1908, a depression which was in itself a contributing cause in the changes which have taken place since then in selling methods.

The days of expensive selling methods seem to have passed. Even the firms which continue to depend upon correspondence for the sale of their stock now find that it takes many more letters than formerly to land an order. Customers who used as a rule to send in their orders as soon as they received a letter telling of the stocks for sale, now frequently send a polite reply to the effect that they have already secured their stocks. The man who has sold them the stock is probably the fortunate one who happened to make a call at the time when the company considered that they needed the lumber. Personal solicitation for orders seems in fact to have become the universal method of securing business. Lumber salesmen have become so numerous and so ubiquitous that the buyers of lumber have found their facilities for securing stock greatly increased. So easy has it become, in fact, to secure lumber, that the habit is far more general than formerly to stock up only with what it actually needed for immediate trade. In the old days the problem was largely one of producing the lumber. The selling looked after itself. To-day it is a problem all along the line from the log to the disposal of the finished stock. It is not stretching the truth to say that lumber is often sold to-day at a cost several times greater than the cost of ten or twenty years ago.

In view of these facts the situation has an important bearing upon much of the discussion which is heard regarding the increased cost of living and the part which the higher price of lumber plays in the problem. This discussion often omits any consideration of the interesting factor involved in the increased cost of selling. Higher cost of labor and materials and increased transportation rates are generally remembered in the discussion. The cost of selling, however, is unquestionably a most important factor. It cannot be lost sight of in making a just estimate of the situation and it will be found that the increased cost of selling, together with increases in the cost of labor and materials go a long way to account for the higher price of lumber. During the years which have intervened since the depression of 1907 and 1908 the return to the manufacturer of lumber has not by any means been commensurate with these increases in the cost of producing lumber.

The advance in the cost of selling lumber is responsible for the close study which is now being given to the question of publicity. Nothing to-day is of greater importance than a successful method of conveying to prospective buyers a knowledge of the attractive qualities and prices which a firm is able to offer. Publicity is of many varieties and the problem of selling is to discover the most effective method of publicity. No matter in what way the problem is solved, it is entirely one of telling the customer either by letter, by personal canvass or by the use of advertising space in trade journals, all the good points of the product for sale. In trade journal advertising everything depends upon making good use of the space purchased. The circulation of the journal will always do its part in selling lumber but it cannot show its best results without intelligent arrangement of the arguments published. By trade journal advertising, properly conducted, the cost of selling lumber can be reduced to something fairly close to the cost of the old method of correspondence. This is not stated by way of advertising the trade journal. It is a simple fact which can alone account for the wonderful increase in the use of advertising space which has taken place of late years. The object of referring to the use of advertising space is to bring home the fact that the spirit of the times has vastly altered within a few short years and that although it costs more to sell lumber to-day than it used, it is still possible by good selling methods, to keep the cost relatively low. The combination of a keen selling staff and a well-conceived and executed advertising plan will enable any firm to bring down its selling cost to a figure surprisingly close to the cost which prevailed when lumber sold itself and the trade journal and the expert salesman were in their infancy.

Instructions to Employees—Their Importance

A cabinet maker of the old school was one day working upon a table when a neighbor called upon him and found him polishing the under side of the table. The neighbor's curiosity was aroused and he asked the cabinet maker why he was wasting his time polishing a part of a table which no one would ever see. "Perhaps no one would ever notice the roughness there," replied the cabinet maker, "but I would know it was there." This is unlike a custom which has been imported into manufacturing by the competitive methods which have developed of late years. So great has competition become and so accustomed have the buyers grown to looking for bargains resulting from competition, that the bargain-hunter to-day is surprised, like the cabinet maker's neighbor, when he finds that work has been done upon an article which does not increase its utility but simply adds to the sentimental value.

In many respects this policy of putting on only so much work as is required in order to give the article its necessary utility and outward finish, is a matter for regret. It is a habit which is certain to grow upon the workman and to reduce both his ability and his pride in the work performed. There is nothing which will conduce more to the creation of a good reputation in the woodworking business than a conscientious attention to details. A reputation built up in this manner is of distinct commercial value and enables a workman, or a firm, to secure a better price for their products and also to depend upon regular trade. In the management of a woodworking institution much depends upon the ability and conscientious application of those who are in charge of the workmen. The workmen will, in practically every case, adapt themselves to the demands which are made upon them. For this reason it is important that their instructions should be definite and thorough. With complete and accurate instructions there is little danger of a workman going astray, and if in addition he receives his instructions promptly it is certain that every good workman will turn out his products properly and on time.

Looking at the other aspect of the case, it is easy to recall cases without number in which a fair workman has come to grief simply because he has been left in doubt by those whose duty it was to instruct him. A workman's intentions may be of the very best but when he is not quite sure as to what is required of him there is every probability that he will not be able to give steady satisfaction. With direct, complete, and careful directions, a workman is relieved of all anxiety regarding the result of his efforts and is able to devote every bit of his thinking power to the actual production of a perfect product. Under conditions of this nature he will not only turn out good work but he will develop a higher standard of craftsmanship. Unquestionably, a woodworking institution which wants to turn out satisfactory products and to build up a profitable trade must see that its workmen are freely given the counsel of perfection. Not that perfection will ever be attained by any of them, but it will be so nearly approached that it will take a sixth sense to discover any shortcomings.

One of the most vexed problems in connection with the manufac-

ture of lumber is the apportioning of the cost of manufacture between the various grades of product from the log. One will hear this question discussed wherever lumber is manufactured and it does not happen very often that the same opinion is given by two people at the same time. Nevertheless, there is a fairly standard practice among sawmills which amounts to pro-rating the total cost of the product at the tail of the mill between the different grades of product, according to what may be considered to be their respective commercial values. In an interesting article upon this subject the American Lumberman recently referred to the matter as follows:

If the average value is $12 and the average cost $9 a thousand, a grade valued at $16 would have $12 cost charged against it, and if culls are considered worth $8 a thousand they would bear $6 cost.

This advalorem apportionment of cost is necessary as an arbitrary plan because the costs have been applied directly to the entire log before it has been separated into its various grades of product. The same theory would not, however, support that plan of apportioning costs upon the various grades of lumber after they have been separated. A plan that involved the charging of 75 cents for dressing No. 3 and $1.25 for dressing No. 1, regardless of what the actual planing mill costs were, might tend to the securing of a better price for the No. 1; but it might tend also to selling No. 3 at an actual loss. As a matter of fact, it probably has actually cost more to dress the machine knives, and perhaps also a slower feed. If the No. 3 dressed can not be sold for enough more than in the rough to pay the actual and not a false cost of dressing why not sell it rough?

A similarly interesting question relates to the practice of charging initial cost of the logging railroad to the timber account instead of burdening log transportation with it. It is claimed that by this means it is more clearly evident how poor a log it will pay to bring out to the mill, charging it with no stumpage cost (because had it been wasted it would have borne none), but only with the actual cost of getting it out to the mill, which is apparently smaller under this plan of accounting.

This is an interesting proposition and one that has some merit; but not to the extent which the above statement would suggest. In the ordinary cost of such an operation there would be a charge for depreciation of main line, perhaps of about 15 per cent., including interest on investment and a sinking fund intended to wipe out the original investment in about ten years. This involves the theory that at the end of the ten years the road will still be in good physical condition and available for further use.

As distinguishing from other industrial lines having an indefinite period of usefulness, however, the logging road will, when the timber is cut out, be still in physical condition, but there will be no further need of it, and its value will be practically extinguished at that time. Another factor of depreciation is added by this fact.

This factor of obsolescence is a proper loading upon the amount of merchantable timber to be brought out over the line. If the value to be extinguished is $45,000 and 450,000,000 feet of timber are to be brought out over the line it amounts to 10 cents a thousand on that timber. It is not affected by the fact that the operator elects to bring out 5,000,000 feet of additional low grade logs not considered as merchantable in the sense of bearing their proportion of stumpage cost, but considered as possessing sufficient value at the mill to pay their actual costs. These logs need not bear this 10 cents obsolescence burden.

The other factor of depreciation, however, taking care of the cost of repairs needed to keep the line in original condition of efficiency, relates to time and use. It increases with the length of time that it is necessary to operate the road to bring out the timber, and with the amount of timber to be brought out. Suppose the operator is hauling 5,000,000 feet a month out of the 450,000,000 feet of merchantable; if now he changes his policy and brings out 500,000 feet of "available waste" timber it is clear his monthly operating cost of railroad will not decrease, and the month's operation must still bear the same burden for repairs, but the amount of merchantable logs hauled will be reduced to 4,500,000 feet. If it cost $10,000 to operate the trains and $2,000 to maintain the line and extend spurs to each new timber cut during the month, the half million feet of available waste must bear not only $2 a thousand train cost but 40 cents a thousand maintenance of line cost; otherwise a larger apportionment must be charged to the merchantable logs, and one has the proposition of making his regular log supply cost more than it otherwise would in order that his account for saving the "available waste" logs may show a false margin of profit.

The 10 cents a thousand charged upon the merchantable timber as above suggested takes care only of the value which will be extinguished in the railroad when the timber supply ceases, and does not take care of the $45,000 originally invested in the road, which is a different factor. The foregoing suggestion proposes to charge this original investment directly to timber account as an added cost of timber. This gives opportunity for discussing some very complicated cost factors which it may not be profitable to take up here; but it is evident that where the logging road operates as an incorporated common carrier, or even as a separately incorporated private line, such a plan could not be followed.

However, it may be well to point out that the line of division between merchantable timber, that of sufficient value to pay both stumpage costs from stump to mill, and the "available waste" which can not bear its share of stumpage cost but can bear the cost from stump to mill, and can therefore be saved—the line of division between the two classes—varies as the cost of stumpage varies.

If the tract cost $1,125,000 and contains 450,000,000 feet of timber of sufficient value to bear a stumpage cost of $2.50, that will be the amount of stumpage, and the cost of stumpage per thousand feet. But if by charging in $45,000 cost of logging road one raises the cost of stumpage to $2.60 it may be that of the 450,000,000 feet of timber there will be 5,000,000 feet, or approximately one per cent., of the lower grades which thereby cease to be merchantable and become "available waste"; so that while devising a system which will enable one to save more of this waste by reducing the costs which it must bear to get to the mill, he is also at the same time increasing the amount of the waste which must be saved.

Undoubtedly as a practical fact many logs are left in the woods which could profitably be brought out. Undoubtedly, also, many logs are brought out which produce an actual loss, and the proposition is one which needs careful study. It is obvious that the actual costs must be handled in a manner which will produce true and not false results, and this applies to the saving of waste in the woods or at the refuse burner. Many a piece goes to the burner which has already gone through the entire sawmill process, or which needs but a single additional operation costing perhaps 10 cents a thousand feet to fit it for a low grade lumber use. It is clear that such a piece may be saved if it will meet the cost of handling from the tail of the mill, perhaps $2 a thousand on car at the mill dock, without requiring it to meet the sawmill cost of $2.50 or $3 a thousand. Often the same manufacturer who from a false motive of economy is losing money on bringing out trashy logs is at the same time sending to the burner a lot of low grade lumber—and lumber of the highest grades lacking only in length—which might well be saved and utilized by a little sensibly directed effort.

An important Government matter affecting manufacturers in British Columbia is the order for customs inspectors to seize all imported shingles marked as British Columbia red cedar shingles. These shingles are manufactured in Washington and Oregon and shipped into Canada under the brand of B. C. shingles, and since the order was issued several carloads have been seized.

Employees of the Defiance Machine Works, Defiance, Ohio, held their annual picnic on July 4th last, at Island Park, on the Mawmee River, near Defiance. The employees and their friends to the number of one thousand attended, and a very enjoyable time was spent by all. Addresses were made by Mr. Kettering, the manager of the firm, and Mr. Chas. Seymour. Music was furnished by the 6th Regimental Band. It is the intention of this firm to make their Employees' picnic an annual event, as it helps considerably to spread a spirit of harmony between employer and employee.

High Freights Reduce Maritime Trade

Ocean Tonnage from New Brunswick Ports Eliminating Profits and Creating Possibilities of Reduced Cut Next Winter—Extensive Jam on Miramichi

By the Editor of the Canada Lumberman

Campbellton, N.B., July 5th; (Special correspondence of the Canada Lumberman): The lumber trade situation on the Restigouche River is in a large measure dominated at present by the high rate for ocean freights for shipment to Great Britain. Recently a charter was secured at 53s. 9d. per standard from New Mills, a Restigouche port, to the west coast of England. This is a low rate relatively, the prevailing rate being 55s. Last year the shipping season opened with rates at about 32s. 6d. and they advanced during the summer to 39s. 6d. Since then, up to the present, the rates have been advancing further, and to all appearances the end is not yet in sight. What this will mean to the lumber industry on the Restigouche still remains to be seen, and depends largely upon the future course of freight rates. There has seldom been a time when high freight rates could be a more regrettable factor than they are during the present year. The manufacturers are now in a position to produce lumber more profitably than they have been for a long time. Their drives came out with scarcely a hitch, and every company operating on the Restigouche is in an enviable position so far as a large supply of logs secured at a relatively low cost can make their position enviable. The markets in England are more active than usual and are in need of New Brunswick spruce, but the cost of transportation is almost prohibitive.

Up to the present, shipments to the old country have kept up fairly well in spite of the high rates, as manufacturers have preferred to ship their stocks and to hope for lower rates toward the end of the season, by means of which to average up their profits. Unless such an improvement takes place there is a practical certainty that next winter's operations in the woods will be greatly lessened. Already one hears reports that the logs now on hand will not all be cut during the present year. This is the only reasonable result of the present situation as no manufacturer can be expected to continue in the face of certain loss. Those who are dependent upon the lumbering industry for their livelihood will be the first to feel the effects of a decreased output in the mills during the last month or two of the year, and a smaller output in the woods next winter. Both of these results appear at present to be far more probable than an improvement in the freight situation. One of the noticeable changes resulting from the freight situation is already evident. A larger number of sailing vessels are engaging in the ocean freight business than in former years and the arrivals of steamers for lumber cargoes are fewer than usual. Those who follow the situation closely ascribe the change to increasing international trade, which has made a demand upon the available freight tonnage of the world, with which it is unable to cope. Whatever the cause may be, the effect is clearly evident and is causing widespread concern among the lumber manufacturers of New Brunswick.

An Unsatisfactory Combination of Conditions

Had this state of affairs been accompanied by a shortage of available stocks of logs, or by a falling off in the keen competition in the lumber markets of Great Britain, the trade at Restigouche points and at the other important exporting points in New Brunswick might have remained normal. But the reverse is the case. Restigouche operators, for instance, have some 108,000,000 feet of logs this year, as the result of last spring's drive. Last year they had about 95,000,000 feet. In 1910, the total was 91,500,000 feet, and in 1909, 81,000,000 feet. The statistics and market reports therefore show increased output of logs, freight rates over fifty per cent, higher than a year ago, and foreign markets characterized by keen competition. The net result is reduced trade and about a dollar a thousand feet less for the lumber manufacturer.

There are one or two features of the trade, however, which are assisting the manufacturers and which appear to bear the seeds of future important developments. Broadly speaking these may be summed up in an increasing tendency on the part of the manufacturers of New Brunswick lumber to look to markets nearer home. In the first place the lumber trade in the Maritime Provinces is much better than it has been for some years. For a time it was at a standstill earlier in the present year, because the new government at Ottawa had not commenced its important outlays upon public works. These are commencing now, and the trade of the Maritime Provinces in general is active. There is not only an increased demand for lumber, shingles and lath, but there is also an improvement in the class of product which the local markets are now consuming.

Much the same thing applies in connection with the trade with points in the Eastern States. In spite of the fact that everyone predicted a poor year's trade on account of the presidential elections, the demand for New Brunswick lumber has improved greatly at New York and Boston and a number of the New Brunswick manufacturers who formerly depended mostly upon the markets of Great Britain are finding an outlet for their product in the United States. Formerly the United States markets took the lower grades mostly, but to-day they are buying large quantities of the better grades. Unfortunately the United States markets are not safe to bank upon, as trade conditions fluctuate there so greatly and so rapidly. Nevertheless, under present conditions, they are furnishing an excellent substitute outlet for stocks which cannot go to the Old Country.

The Importance of Quebec and Ontario Markets

Perhaps the most noticeable and also the most important present feature of the trade is the tendency to look to Quebec and Ontario markets, both of which are now active. The most frequent enquiry which one hears among the mill-owners of New Brunswick to-day, is regarding market conditions in Ontario, and the outlook for establishing therein a steady trade for New Brunswick lumber and shingles. Unquestionably, New Brunswick manufacturers at Restigouche and Miramichi points are studying this feature closely. Several have already laid plans for actively seeking Ontario trade. New Brunswick lumber and shingles have already been sold in Ontario markets for a long time, through local agents. The present temper of the manufacturers, however, is to go far more extensively into these markets, and to send their own representatives out for orders. New Brunswick firms have done very well in the markets as far west as Montreal and they believe now that in a short time they will do nearly as well also in Ontario. One large firm to-day has its chief member travelling in Ontario, going thoroughly into the question. Other firms of equal importance are developing plans along the same lines. They are impressed with the fact that all lumber is bringing good prices in Ontario to-day, and that with their excellent timber resources and favorable operating conditions they ought to be able to place New Brunswick spruce lumber and cedar shingles, especially in Ontario, at prices which will give them a ready sale.

Whenever one speaks of shingles to a New Brunswick manufacturer he is assured that for lasting quality and good manufacturing they cannot be excelled. One hears frequently a complaint that New Brunswick shingles have been misunderstood in Ontario, because of inferior grades being imported by Ontario firms and represented to purchasers as the better grades. One manufacturer indignantly related that he had found clear whites—a sap shingle—represented as one of New Brunswick's choicest grades, and that he had frequently heard retailers report that the trade had soured on New Brunswick cedars and wanted nothing more to do with them. There is room for some persistent educational work along this line in Ontario and the promise of good results is encouraging.

Miramichi Lumber Trade Conditions

Much that has been said of trade conditions at Restigouche points applies with equal force in connection with Miramichi points. One of the largest manufacturers on the Miramichi in discussing the situation said:

"Trade conditions, as far as lumber is concerned, are very unsatisfactory, principally on account of the excessive freight rates. The markets in England are as good as they were last year, but there has not been improvement sufficient to cover the increased cost of shipment, which amounts to from 15s. to 20s. per standard above last year's rates. To-day, the rates asked from Miramichi points are from 55s. to 60s. per standard. Last year they were from 37s. 6d. to 40s. per standard. A rate of 52s. 6d. has been paid for a Bay of Fundy port within the last few days. At the same port last year they would not pay more than 37s. 6d. Those who sell their stocks f.o.b. Miramichi points have this year to accept from $12.50 to $13 per thousand feet for a specification of thirty-five per cent. 9's and up and sixty-five per cent. 7 and 8 x 3, whereas last year the same mills got from $14.50 to $15.25 for the same stock. Up to the present this has not been reducing the volume of trade, because the mills had their stocks of logs and have felt obliged to go ahead with their sawing. There is no profit in the business at these prices, however, for the mill owners, and when this stock is sawn, unless

they can get better prices many of the mill owners will not go back into the woods next winter. Some of them have already practically decided not to do so. The markets in the United States are good but the duty of $1.25 per thousand feet against Canadian lumber is hard to overcome."

Government's Timber Lease Policy Should Be Announced

Speaking of the standing timber situation, the same operator, discussing the government's position, said: "The time has arrived for the New Brunswick Government to define its policy in regard to the timber limits. The present leases to cut timber from Crown lands all expire in 1918. The conservation of the forests, and the continuance of the lumber business in the hands of the present mill owners, whose large vested rights deserve consideration, depend upon the government declaring its policy at an early date. Unless the present owners of leases are made reasonably certain of a continuance of their cutting rights upon terms which are not burdensome, their only course must be to make the most of their present opportunities by cutting every possible stick of timber before 1918, and in this way doing a serious injury to the timber resources of the province.

"At present the stumpage rates are as follows: spruce, pine, cedar and hardwoods $1.25 per thousand feet; hemlock, 40 cents per thousand feet, or 40 cents per cord for hemlock bark; balsam fir 80 cents per thousand feet. A rental of $8 per square mile is also paid annually, which is the highest rental charged by any of the provinces in the Dominion.

"The owners of timber licenses want the government to define the policy under which they are willing to renew the licenses after 1918 and also to fix the stumpage rates for a definite period, as is done in other provinces."

In connection with the views expressed above by a prominent lumberman, it is interesting to note a couple of well-defined rumors on this subject. One of these is to the effect that the government, being anxious to encourage the manufacture of pulp, intends shortly to announce that sawmill operators who also conduct a pulp manufacturing business will be granted renewals of their licenses on satisfactory terms. This would be all well enough but would not be fair to those whose facilities do not permit of pulp manufacturing, and who would be left in the dark until the government made a further announcement of its policy. Another rumor is to the effect that the large holdings of timber leases will be reduced; that every lease will be characterized by a fixed proportion between the standing timber and the capacity of the mill and that the present large holdings in many cases will be reduced by about one-half. The idea of such a policy would be to encourage the smaller manufacturers and bring about a more general distribution of the timber resources of the province. Such a plan would naturally meet with disapproval among the larger companies. These are only rumors, not to be vouched for, but they indicate the trend of opinion and they clearly make it a matter of importance that the government should soon declare itself upon this matter which concerns in a large measure the commercial welfare of the province.

New Brunswick Notes

Not for the past twenty years has there been such a sight on the Miramichi River as has been produced by the jamming of nearly the whole cut of the lumber drive on the southwest branch of the river. The great jam is located at a point a couple of miles above Millerton, where from 60,000,000 to 70,000,000 feet of logs are packed into a space about three-quarters of a mile long. The jam extends from shore to shore and reaches from the bottom of the river to a height in some places of twenty feet above the level of the water. The logs in the jam are valued at $600,000 at least.

The cause of this exceptional jam was a rapid rise in the river caused by three days of prolonged and heavy rain. All the logs in the southwest boom limits and those above it were swept down by the flood. At a point in the lower end of the boom limits a jam quickly commenced to form. The great quantity of water and the exceptional number of logs, caused the jam to form quickly and soon to extend to the bottom of the river. When the water subsided, the logs formed a solid bridge across the river averaging three or four feet above the level of the water. At first it was thought that dynamite would have to be used to move the jam, but it has been found necessary only to use donkey engines and the logs are being worked loose by this means. At latest reports it was expected that a channel would soon be cleared through the jam and that the logs would then commence to move freely.

Part of the jam of 70,000,000 ft. of logs on the Miramichi

The Morrison rossing mill, belonging to the Miramichi Lumber Company which has not been operated for a couple of years will be allowed to remain idle for another year. The policy of the company will be to dispose of the large quantity of rossed pulpwood now on hand before commencing operations at the Morrison mill. At present they can only secure vessels enough to move the output of their saw mill and their other rossing mill at Chatham.

Mr. Arthur H. Campbell, of the Campbell-MacLaurin Lumber Company, Montreal, made a business visit to New Brunswick during the last week in June.

Mr. Wm. Power, M.P., of W. & J. Sharples, Quebec, P.Q., visited New Brunswick points upon business during the last week in June.

Mr. D. H. McLennan, of the McLennan Lumber Company, Limited, Montreal, visited some of the New Brunswick mills during the last week in June.

D. J. Buckley, whose sawmill is located about 1½ miles east of Newcastle, N.B., intends to enlarge his plant for next year's operations, by the addition of a planing mill. He will also install two shingle machines. His present plant includes two rotary saws, double edger and lath machine, and his output is about $50,000 feet per day. He operates also two portable winter mills cutting about one million feet each.

Mr. John T. Rundle Retires from Business

Mr. John T. Rundle, manager of the Miramichi Lumber Company, Chatham, N.B., who had been connected with the company for the past thirty-six years, retired from active business on June 30th, and has been succeeded in the management by Mr. J. W. Brankley.

Mr. Rundle is one of the best known lumbermen in the province of New Brunswick. For the past seven years, since the organization of the Miramichi Lumber Company he has occupied the position of manager and has guided its affairs with much tact and success. He hands the company over to his successor with an excellent organization and a smoothly running plant. The Miramichi Lumber Company purchased the initial part of their plant from the late Wm. Richards and for 16 years Mr. Rundle had been manager of the Richards Company. Previous to this he had had ten years experience with the Guy Bevan Co. of Chatham. His first connection with the lumber industry of the Miramichi was in 1876.

Only four of the 12 provincial water powers put up for auction at Quebec were leased, there being no bidders for the others. Just before the auction three water-powers were withdrawn, thus reducing the original 15 to 12. The conditions were that the water-powers be leased for a period of seventy-five years, on a yearly rental price. The powers leased were as follows: Assemetquagon River, near Metapedia River, Bonaventure County, leased by Mr. James Hall of New Carlisle, in trust, for $51 a year; Riviere Des Aux Nortes, in Hackett township, Champlain County, leased by Mr. Charles Leburn, of Shawinigan, for $53 a year; Chute de la Martine, Metabetchuan River, Lake St. John County, leased by Mr. Hubert Moisan, of Quebec, $38 yearly; Riviere Aux Outardes, Saguenay County, leased by the St. Maurice Lumber and Industrial Company, for $100 per annum.

Members of the Montreal Board of Trade and Chamber of Commerce, with ladies, have had a four days' trip along the north shore of the St. Lawrence, in the "Saguenay," of the R. & O. line. During the trip, the visitors inspected some pulp mills, including the mill of the East Canada Power and Pulp Co., near Murray Bay. They also visited Clarke City, seven miles inland on the Marguerite River, where there is a thriving community. Here is situated a plant for making pulp, with an average of 150 tons per day. There are nearly 1000 miles of timber limits. About 10,000 horse power is developed. Mr. W. Rutherford, Mr. Alex. McLaurin, and Mr. C. G. Spencer were among the Montreal lumbermen who were in the party.

Private Enterprise in Fire Prevention

Modern Methods Adopted by Quebec Province Lumbermen to Protect their Timber from Destruction—Telephone Lines and Watch Towers

By the Editor of the Canada Lumberman.

Look-out Towers for Discovering Fires in the Woods.

Quebec, July 8th: (Special correspondence of the Canada Lumberman). The attention which has been given by the Government of Quebec province to the protection and preservation of timber limits from fire has had an excellent effect upon the owners of standing timber in many parts of the province. Some of the owners of standing timber have in fact, themselves been pioneers in this movement and have co-operated enthusiastically with the province, so that the movement has now made important headway and promises to become of inestimable benefit to the lumbering industry. Prominent among the companies which have taken up this work in earnest are the River Ouelle Pulp and Lumber Company, St Pacome, P.Q., and John Fenderson & Co., Incorporated, Sayabec.

Telephone Protection for Timber Limits

The River Ouelle Pulp and Lumber Company have worked out and put into operation an interesting system of telephone communication, which has enabled them to give their limits excellent protection. The limits of the company include about 192,000 acres of Crown timber lands, which are held under provincial license, and 12,000 acres which are owned outright by the company. The National Transcontinental Railway, which is being constructed by the Dominion Government, traverses the limits from one end to the other and has added greatly to the risk of fire. This was one of the main reasons which induced the company to establish the telephone system. They also found the telephone a great assistance and a means of economy in directing their woods operations from the head office at St. Pacome. Some fifty odd miles of line were first constructed, the line being attached to trees and the telephone stations housed in small buildings, where tools for fire fighting may be stored. The experiment worked so successfully that the company recently added twenty miles of line giving a total of seventy miles now in operation. The lines have been well planned and as they are used for the company's business solely, no interruptions to the service occur. The company is thus in continual communication with its employees in the woods and in case of a fire breaking out, men can be sent in remarkably short time to extinguish it. The chances of a fire ever gaining serious proportions are thus reduced to a minimum.

The last twenty miles of line constructed have been built upon the trolley line system. That is to say, the wires are strung across supporting wires which are fastened to trees a short distance apart. In case of a tree falling, the line falls to the ground without breaking. With the former system of stringing the wires directly from tree to tree, a falling tree would be likely to break the line and destroy the communication. When the National Transcontinental Railway is in operation the River Ouelle Company intend to erect additional mills and will then make further extensions to the telephone service.

Protection by Look-out Tower

Another method for learning of the existence and location of a fire in the woods has been adopted by John Fenderson and Company, Incorporated, Sayabec, P.Q. This company does not require telephone connection to regulate its woods operations, as in the case of the River Ouelle company as it takes only a short time to send men from the head office with instructions to the men in the woods. For fire protection therefore, they have erected on the highest portion of their limits a steel look-out tower, from which a good view is secured of the surrounding country. The location of the tower is about five miles south of Cedar Hall, P.Q. It is practically 2300 feet above sea level and 1800 feet above the level of Lake Matapedia, which is close to the company's mill at Sayabec. The watchman on the tower has a good view of all the surrounding country for a radius of twenty miles. The protection thus obtained covers not only the limits of John Fenderson & Company, Incorporated, but those also of Price Brothers, and part of the limits of the Metes Lumber Company, which adjoin.

The look-out man is in telephone connection with the National Telephone Company which runs through the St. Lawrence Valley from Levis to Campbellton. He is thus enabled, when he discovers a fire, to report immediately to the head office and men can be sent out at once to extinguish it. Very few fires thus secure a dangerous grip. Only once has it been necessary for the company to close the mill and send out all its employees.

The steel tower has a height of 50 feet from the ground so that the look-out man may be well above the tops of the trees. On the top is a platform 12 feet square, furnished with a table and an aldidade, an instrument for finding the location of a fire which has been noticed. The limits of John Fenderson and Company, Incorporated, include ninety square miles of land under license and 37,000 acres of private lands, making in all 94,600 acres which the look-out man protects, in addition to those of Price Brothers and the Metes Lumber Company.

Tool Boxes Distributed in the Woods

To supplement the look-out system, boxes containing tools are put out throughout the limits. There are between 25 and 30 of these boxes in all. The contents of the boxes vary according to the locality. The tools include shovels, pails, axes, grub hoes, mattocks, etc. The boxes are located at places where the greatest danger exists.

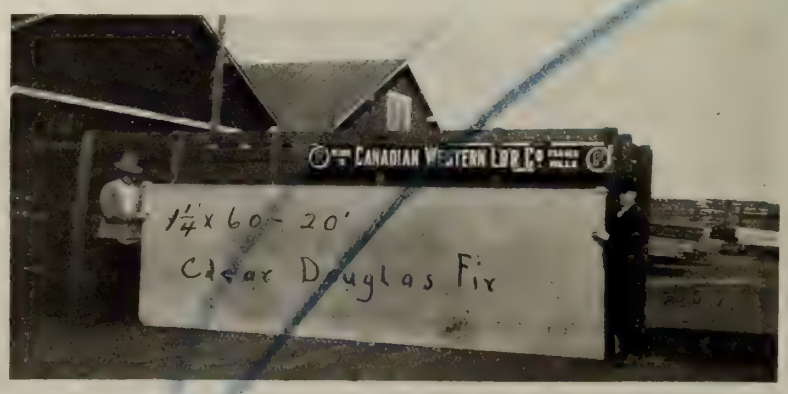
The look-out man spends the whole day on the tower during the dry season. Some years this will mean the whole of the summer, while in other years it will be only for a month or two. He spends much of his time preparing a map of the surrounding country and perfecting the means used for locating a fire. He lives in a small house near the foot of the tower and his principal exercise consists of climbing the tower and going for water for his cooking, washing, etc.

This system of protection has proved most successful and a similar tower will be erected soon by Murray & Gregory back of L'Islet near the boundary line between Quebec and New Brunswick.

The recent formation of the St. Maurice Valley Protective Association is another step in a similar direction to the above, though on a far more extensive scale. The owners of timber in the valley have combined for mutual protection against fire. By having a large area patrolled under a single management they will be able to carry out the work far more effectively and economically than if it were done individually. Altogether the movement in the direction of preventing forest fires in Quebec province is of encouraging proportions and is certain to prove an important factor in the successful development of the lumbering industry.

The illustration at the head of this article is a view of the tower on the limits of John Fenderson and Company, Incorporated.

The board shown above which is 1¼ x 60—20 clear Douglas fir was recently cut by the Canadian Western Lumber Company at their Fraser Mills, B.C., from a fir log 10 ft. in diameter. It is a well



Cut from a B. C. Fir Log 10 Feet in Diameter.

known fact that fir as a general rule is exceptionally clear but a board of this dimension is very seldom heard of. The Editor of the Canada Lumberman will be pleased to receive photographs and descriptions of exceptional sized board and logs.

Canadian Saw Mill Managers

J. A. Mercier, Les Escoumains, Que.

J. A. Mercier, Les Escoumains, Que.

Probably in connection with no other industry more than in the manufacturing of lumber can it be said that its business instincts and preferences are handed down from father to son. If the lumber industry of Canada were studied with a view to discovering the extent to which the truth of this claim could be substantiated, it is safe to say that the results would be astonishing to even those who are already aware of the general fact. Those who have in this manner carried on the traditions of their families in the world of business have in a remarkably large number of cases made good in a way which is also characteristic of the lumber industry. Mr. J. A. Mercier, whose portrait is published herewith, is one of the examples of this feature of the lumber industry. He is the son of Mr. Arthur Mercier, a man widely known and respected in the province of Quebec as a lumberman.

Mr. J. A. Mercier was born in the province of Quebec and after finishing his preliminary education took a course in a commercial college to enable him the better to handle the problems of business life which he was certain to come across as an active lumberman. Then he commenced work in the employ of his father who was at the time engaged in farming operations at Port Dalhousie, Ontario. In the year 1901 Mr. Mercier's father, together with Mr. F. C. Dudley and Mr. C. W. Morton, formed the Saguenay Lumber Company. They bought limits on the Escoumains river and settled in that district, one of the most beautiful spots upon the north shore of the St. Lawrence. In the employ of this company Mr. J. A. Mercier first of all devoted his attention to their store, and he was appointed manager in 1909, replacing his father who then retired. Having secured an excellent training in the work he took charge of the sawmilling operations and became one of the most successful mill managers in the province of Quebec.

Les Escoumains is situated 27 miles from Tadousac and 21 miles from Trois Pistoles where the Intercolonial Railway passes. Although 150 miles from the city of Quebec, Les Escoumains can be reached from that place in 8 hours. The Saguenay Lumber Company own one of the finest tugs on the St. Lawrence river called "Escoumains." During the spring tides, the company are able to load at their wharves, a boat drawing 11 feet of water. Throughout the summer months they operate a schooner known as the "Saguenay," which carries lumber to Quebec and returns with supplies.

The limits owned by the Saguenay Lumber Company amount to 410 square miles and contain a large supply of saw logs and an almost incalculable quantity of pulpwood. It will be readily seen from these particulars that Mr. J. A. Mercier in his capacity of manager is an extremely busy man. Thanks to the excellent training which he has been able to secure from his boyhood days, on account of his father being engaged in the saw-milling industry, Mr. Mercier is thoroughly equipped to carry out the extensive duties connected with an operation of this nature.

Different Methods of Salesmen

Some salesmen are very conscientious in soliciting orders and are careful not to overload their customers, says the American Lumberman. One such was heard to advise a dealer to buy a smaller quantity of a certain item than he intended to buy, as in his case the material was slow of sale, and it would be better to buy oftener than to hold the stock so long in pile with his money tied up in it. The dealer saw the force of this argument and bought in accordance with the salesman's advice. The salesman said that was his custom, and he believed he had made business friends by it. His duty, he said, was to assist his customers in every possible way, and he knew of no reason why a retail lumberman should overload with any particular item any more than he should were he dealing in other lines of merchandise.

At the time yellow pine was feeling its way at the minor northern consuming points it was the advice of a certain salesman to his customers to go slow in buying. In a certain sense the consumer must be educated to its use, and it was unnecessary to invest any large amount before the wood was established. It would take the place of white pine and hemlock, but it would not do it all at once. One car for a trial would answer every purpose, and if that sold readily a larger stock could be quickly obtained. This advice was acted upon, and an unnecessary investment was avoided.

A salesman took the same position in regard to redwood siding. Redwood had not been sold in the market. The siding was pleasing to the eye of the dealer, it was offered to him at a price that was a consideration, all of which did not imply that it would be accepted by the consumer. It was the advice of the salesman, who formerly was in the retail business, to go slow on it; that the actual sale of any material beat any anticipation of the way it might sell, and that it would be better business policy to lay in a half car than a full one until the verdict of the builder had been rendered. This was done, with a result that on the next visit of the salesman he was given an order for a car.

The majority of salesmen, however, are less conservative than this. They consider it their business to sell all the lumber they can, and frequently they solicit in a way that is not entirely pleasing to their customers. A dealer was heard to remark that because of the persistence of a certain salesman he had become absolutely objectionable to him. That salesman, he said, would go out through the yard, note the size of the piles and then argue that he was short of certain items which should be added. In short, he assumed to know more as to what the dealer wanted than did the dealer himself. That salesman seldom receives an order from this dealer, yet he may not know that his insistency is the reason.

A certain dealer said he did not want any salesman to tell him what he wanted, or what he did not want. If the salesman was going to run the business, why, let him buy it and then run it, but until that time he wanted no dictation from him. Nothing, he said, would disgust him more quickly than for a salesman to keep "pegging away" at him, as he expressed it, to buy when he had no occasion to buy. He was always glad to know of anything new there was to be offered, of any special prices which might be made, and knowing this he would be the judge as to whether it was the thing to buy or not.

There is a salesman side to this question. One of them said he had customers who keep no close run of their stocks. He had looked through their yards and discovered shortages which, if not corrected, would have proved embarrassing. He noted an instance in which the bin of 2 x 4—12 was nearly empty, the dealer being of the opinion that a bin of 2 x 4—16 were of the first named dimension. He could recall several instances of a similar nature. He had customers who kept a list on their desks of the items wanted, and if he could not sell to them the material listed he knew he could not sell them anything. These customers know what they have in stock and it would be senseless to suggest any additions to it beyond the shortage list that was made out.

Another salesman said he regarded it as his business to sell anything he could to a dealer provided he could pay for it.

Record Car from the West

The accompanying illustration shows what is probably the largest car load of dressed lumber ever shipped from Canada. It is a car of Douglas fir sheathing, consigned to the Canada Car & Foundry Company, Montreal, and shipped by the Canadian Western Lumber Company, Fraser Mills, B.C. The car which is of the automobile class, owned by the Rock Island Railroad, is an exceptionally large one with doors at each end. The load was made up of 28,060 bundles, six pieces to the bundle, 1 x 4 x 9 Douglas fir sheathing, aggregating

Record Car Load of Lumber from the West

51,480 ft. b.m. The Canadian Western Lumber Company have shipped some large cars recently, but they think that this one is a record for Canada. The Canada Lumberman will be pleased to have mill men forward a description and photograph of any car that exceeds this.

New Brunswick Trade Changing Markets

Markets of Great Britain Disturbed by Competition and High Freights—Increased Shipments to Eastern States—Lumber Producers Association Suggested

By the Editor of the Canada Lumberman

St. John, July 5th: (Special correspondence of the Canada Lumberman). Lumbermen in New Brunswick have various views regarding trade conditions at present but they are all a unit in declaring that the trade with Great Britain has been demoralized by the high freight rates for ocean shipment. In cases where it is possible to ship to United States markets such as Boston and New York, the effect is not so serious, but, there is scarcely a lumber manufacturer in New Brunswick to-day who has not suffered by reason of the increased cost of shipment: even the shipments by rail to the United States are still in an unsatisfactory condition as the railroads cannot furnish sufficient cars. It is undoubtedly the case however, that New Brunswick manufacturers this summer are devoting far more attention to United States markets than formerly. The demand from the Eastern States has increased greatly, a fact which is responsible largely for the independent stand taken so far by manufacturers, in regard to English contracts. It has been most fortunate that the United States market has, in this manner, helped to consume stocks which might otherwise have accumulated and compelled sales to Great Britain at unremunerative prices.

Some Manufacturers Talking of Closing Mills

As to the actual state of trade and the probable developments of the near future, opinions vary greatly. Two well known St. John manufacturers express the opinion that unless freight rates to Great Britain and the United States come down, they will be obliged to stop their mills for lack of piling grounds, and that a further result will be that they will have to hold over some of their logs for next season and will not operate so extensively in the woods next winter. Whether this result is to come about, will depend upon the margin of profit possible, after paying the freight rates. That there is not as yet a unanimous belief that the mills will stop rather than pay the high freights, is evident to those who discuss the situation with different members of the trade. An opinion which is frequently expressed is, that so far as the United States trade is concerned the manufacturers will, in the end, pay the higher freights and move their stocks rather than stop sawing. Just at present however they are not doing so to a great extent and vessels are very scarce as a result. Vessel owners can get the higher rates elsewhere and naturally avoid the ports where shippers are holding out for lower rates. It is stated by some that plenty of vessels would flock to St. John if it once became known that the shippers were willing to pay the increased rates. To-day the freight to New York from St. John is $4 per thousand whereas a year ago it was only $3. To the Old Country the rates have advanced about $2.50 per thousand and the rates from Baltic ports to the United Kingdom, although higher than a year ago have not advanced in anything like the same proportion. Baltic whitewood therefore is getting the greater part of the trade which formerly belonged to Canadian spruce.

Sawing More for United States Trade

The New Brunswick mills have been able in most cases to alter their sawing operations to suit the United States markets, without any difficulty. The chief difference consists in cutting two inch stock instead of three inch. With a bandsaw equipment this involves no alterations. With a gang saw a few changes costing practically nothing, are needed. The eastern United States have always taken a fair quantity of long lumber from New Brunswick. The demand of late however, has turned strongly towards lumber for making boxes, for which the shorter lengths provide good material. Thus the stock which would go to the Old Country under normal conditions is finding a good outlet to-day in the United States. The situation, for the time being, is redeemed to a great extent in this manner. Whether the change will be permanent remains to be seen. Many of the New Brunswick manufacturers have preferred the English markets in the past, considering them more steady. Unquestionably the demand for lumber in the United States suffers from extensive and sudden fluctuations, yet, with conditions continuing as they are in England to-day it will not be unreasonable if the New Brunswick manufacturers turn the larger part of their trade into the United States, feeling that it is better to trade in a fluctuating market, than in one where they are so frequently confronted with labor disturbances, and high freight rates which dislocate trade and render it even more speculative and risky than that with the States. Examples of the risk which accompanies the Old Country trade under present conditions are not hard to find. In a certain case for instance, a prominent firm of New Brunswick exporters, last year refused to accept the prices then offered in England. The freight rates left them so small a margin of profit that they decided to hold a lot of their stock over till the present season for a better price. After the expense of holding this stock they are to-day accepting a price below that which they refused last year. It may be said however, that, to a lesser extent, similar trouble exists in connection with the U. S. trade on account of scarcity of vessels and cars. One firm during the early part of the present year contracted to deliver 500,000 feet of lumber and were only able within the specified time to secure sufficient cars to deliver 100,000 feet. The balance of the order had to be abandoned. In this connection there is a most important difference between conditions in England and in the United States. In the latter country there exists an excellent demand for New Brunswick lumber, shingles, etc., and buyers are ready to pay good prices, the only difficulty being to make dilevery. In England, however, there are several difficulties. The high freights make delivery very costly and the competition of lumber from other countries puts the English importer in a position to put the burden of the freight rates upon the Canadian exporter. There is in fact a wide-spread feeling in New Brunswick that the importers in Great Britain are trying to squeeze them unfairly, hoping that Canadians will meet their terms rather than refuse business.

Organization Suggested to Regulate Output

When the situation, as outlined is considered it becomes a matter of surprise that the large producers and exporters of New Brunswick have done nothing in the direction of banding together to protect their trade. Discussing this subject recently one of the largest manufacturers and exporters of New Brunswick spruce expressed the following views to the editor of the Canada Lumberman:

"The lumbermen of this province should wake up to the fact that the control of the English spruce market is in their hands. If the lumbermen in the Maritime Provinces who are holders or owners of spruce timber could establish some sort of selling or handling company by which the entire cut of the various mills could be controlled, the English market would not be able to dictate to us. We would dictate to it. Instead of this, everyone cuts and slashes, borrows from the banks and begs the Englishman to buy from him. A plan like this, in New Brunswick, would put lumber up two or three dollars a thousand. To-day, when it becomes known that the cut is a very large one here, the Englishmen commence to look for bargains. If each lumber manufacturer in New Brunswick would have common sense enough to allow both his cutting and his selling to be regulated by a handling company in which he would be a stockholder, the improvement would be immediate.

"The only way to bring this about would be to have a few of the men who can afford to do it organize the business. It would multiply the value of our timber resources four fold. Such an organization could provide for protection of timber against fire. It would be in a position to secure necessary important legislation. It would enable us to control the lath market in the Eastern States. The value of our lath in the United States would be increased by from fifty cents to a dollar. It would do away with the competition among manufacturers for cars and vessels. and would strengthen the manufacturers' case in opposing freight advances as the trade of so large an organizaztion would be an important item with the transportation companies.

Some of the Advantages Expected

"The experience gained by such an organization would result in adjusting output and shipments closely to market requirements and would prevent the frequent waste and trade depression caused by over-production. Instead of being cut and sold at a loss, much of our timber would be preserved for a future day when its value would permit of a good profit. The present year has shown the lumbermen that it is possible for some of them to be seriously mistaken in their opinions of future conditions. Some years ago many lumbermen predicted that deals would advance to $20. They went up to $15 and back to $13. They could be sold for $20 under normal business conditions if some such organization were formed as I have mentioned. At least ten of the strongest lumbermen of the province should form the foundation for such an organization. If they could be induced to take the matter up it would mean the salvation of the lumbering industry of the province.

At first glance the above views may seem radical or visionary. That they are not so however, is the firm conviction of the man who expressed them and he is a man who has made a reputation for prudence and business capacity. In order to assist in having this question thoroughly discussed from every point of view, the Canada Lumberman will gladly place its columns at the disposal of its readers, and invites them to contribute their views.

The Making of N.B. Cedar Shingles

Description of Manufacturing Methods Employed in a Modern Mill at Fredericton, N.B.—Grading Rules and Markets

By G. H. Prince

Editor's note: The Province of New Brunswick produces many articles which have made its name celebrated in the markets of Canada and the United States. None of these products is more justly famous than the New Brunswick cedar shingle. The good name of the New Brunswick shingle is to be accounted for in several ways, but the chief are the excellent raw material from which it is manufactured and the great care which has been taken at all times, by those engaged in the industry, to preserve the high standard of excellence in manufacture which helped to make the product so favorably known. In the different provinces of Canada and in the United States shingles are manufactured of many varieties. Each district has peculiarities of its own in its manufacturing methods and there are some characteristics which are common to them all. In New Brunswick the methods adopted are the result of evolution and of close study. These methods have been responsible for a large share of the favor in which the N. B. shingle is held and for this reason an article telling of the actual processes which contribute to the production of the finished article, will be read with interest by shingle manufacturers in all parts of Canada. The following article was prepared by Mr. G. H. Prince of the University of New Brunswick who made a close personal examination of the mill in question and has described its equipment and working in a concise and practical manner.

The mill in question is located on the bank of the St. John river about one mile below Fredericton. When in full operation it cuts two hundred and eight thousand per day and employs sixty to seventy men.

The pond consists of an area of about twenty-five square chains surrounded by booms, the booms being attached to piers arranged around the pond. The rafts are floated into the pond and broken up by cutting the boom-poles. The pondman arranges the logs at the foot of the rollway and attaches a piece of chain some twenty feet long to four logs, two logs on each side of the chain. No dogs are driven into the logs as the chain is attached by a slip knot. The loose end of the chain bears a hook which the pondman hooks into the large endless chain. The latter passes up the rollway into the mill and around a drum and returns under the floor of the deck and rollway. There is also a drum at the lower end of the rollway and one just between the deck and rollway. The main drum is connected with power by means of a shift lever in the hands of the deckman. The deckman takes off the chains, rolls the logs to one side and returns the short chains to the pondman by throwing them down a slide provided for the purpose. The log deck is about twelve feet wide and sufficiently long to allow two ordinary logs to lie end to end. This permits the use of two bolting saws on one side of the log deck. The other side of the deck is devoted to the storing of boom-poles ready to be cut into shingle binders.

Equipment of the Mill

The bolting saws are sixty-eight inches in diameter when new and are used till they reach a diameter of fourty-one inches. They last three years and are worth $105. The logs are rolled from the deck onto the saw table (3 ft. by 12 ft.) which is on rollers so that it may be shoved in against the saw. The top of the table is also provided with rollers so that the log may be shoved forward as each bolt is cut off. Three men operate the bolting machine. One head sawyer who by means of a hooked stick, which he hooks into a ring on an upright attached to the back of the table, holds the log in place while being cut. One rear end man stands at the rear of the table and assists in moving the log and operating the table. One sawyer's assistant who stands at the right of the sawyer and catches the bolts as they are cut and hands them to the barker who holds them against a system of knives which remove the bark. Several men are required to carry the blocks from the barker to the shingle machines where they may be easily secured by the shingle sawyer.

The mill contains sixteen shingle machines of the type made in Fredericton, the saws being seventeen gauge and thirty-six inches in diameter. Each saw is worth $22. They are usually filed three times a day and are used till they reach a diameter of thirty-one inches. One shingle sawyer operates each machine. Each machine is expected to cut thirteen thousand shingles per day. An expert sawyer will finish this quantity early in the afternoon. Back of the machine and in front of the sawyer are arranged five bins into which the sawyer throws the shingles according to the following standards.

Grading of New Brunswick Shingles

EXTRA. A perfect shingle and none less than 3½ inches wide. Shingles 10 inches wide and upwards may have a slight stain between center and point.

Clear. Free from defect 8 inches from butt and none less than 3½ inches wide. Shingles 10 inches and upward may have small round knot 7 inches from butt.

2nd CLEAR. Free from defect 6 inches from butt except a small sound knot no larger than a U.S.A. cent, and not less than 3½ inches wide, also a slight stain to butt.

EXTRA NO. 1. All sap shingles except black and none less than 3 inches wide. No rotten or bad knots for 5 inches from butt. Edges to be free from wane.

NO. 1. All refuse shingles to show sound knots and fairly sound faces.

How the Bundles are Prepared

The shingle packers sit near the bins, on blocks about six inches high and pack their shingles into a box the ends of which are arranged with hinges and springs so that the bunch may be removed when finished. The box has no sides the shingles being kept in line by means of two stakes, one on each side. A bunch of shingles should contain 23 layers on one side and 24 on the other. Each layer should have the equal of five 4-inch shingles. The bunch is fastened together by means of two wooden binders one on each side of the bunch fastened at the ends by tarred rope prepared for the purpose. Each packer is supposed to put up 52 bunches a day, if more are put up more pay is allowed. The packer marks his number on the bunch and a carrier takes it to the store room where the grade is marked on it at once. The carrier also records the packer's number in order to check the number of shingles packed per day per packer.

The wooden binders are cut from the boompoles. The latter are cut into 20-inch lengths by means of a small circular cut-off saw and afterwards split into sticks about 1¼ inch square by a circular rip saw. One man is sufficient to operate this machine and to produce enough binders for the numbers of shingles cut. Grooves are cut in each end of the stick to receive the binding rope and prevent it from sliding off when the bunch is moved. They are made with a knife to which a lever is attached.

Each shingle machine requires ten horsepower to run it. The power is provided by a 250 horse-power double cylinder steam engine. Two boilers are used 6 feet by 16 feet and carrying 85 pounds of steam pressure. The water is pumped direct from the river by a steam pump.

The sawdust and waste material are conveyed by means of two endless chain conveyors, one leading to the furnace of the boilers and the other to a large furnace outside the mill where it is burnt. If necessary the latter chain may be reversed and used to feed the boiler furnaces.

The mill is built in two storeys the lower floor being devoted to the shafting and the sawdust chains. The machinery is all on the second floor.

The market for the shingles is mainly in Boston, U.S.A., the local trade being small except for the poorer quality of shingles. None of No. 1 shingles are shipped away.

The cedar logs are all bought in Maine, U.S.A. A duty of 50c. on each thousand shingles produced is collected on logs coming into New Brunswick. Until lately the United States operator in New Brunswick was allowed to bring his logs in free of duty. The change will probably raise the price of shingles or cause some of these mills to close.

The Riordon Pulp and Paper Company, Limited, Montreal, recently offered to the British public, through Parr's Bank, $750,000 6 per cent. first mortgage debentures at 97 per cent., and an equal amount of 7 per cent. cumulative preference shares at 95 per cent. The total capital of the company is $6,000,000, divided into 15,000 7 per cent. cumulative preference shares of $100 each and 45,000 common shares of $100 each; in addition there are $2,500,000 6 per cent. first mortgage debentures. Of the debentures, $1,000,000 are held in reserve, $750,000 have been sold in Montreal, and $750,000 were offered in Great Britain; of the preference shares $500,000 are held in reserve, $250,000 have been sold in Montreal, and $750,000 were offered for public subscription. The company, it was stated in the prospectus, holds licenses from the Quebec Government to cut timber for 1184 square miles, the standing timber amounting to $2,000,000,000 feet B.M. valued at $2,000,000. The present consumption is 50 million feet per annum. The property of the company is valued at $4,272,954. The profits for the past two years averaged $256,916 per annum, but when certain extensions and improvements now in contemplation are carried out, it is estimated that the profits will amount to $661,916.

Lumber and Shingle Trade of St. John

Conditions of Foreign Markets Causing Important Alterations in the Industry —Shingles in Excellent Demand—Comparison of B. C. and N. B. Shingles

By the Editor of the Canada Lumberman.

St. John, N.B., July 9th; (Special correspondence of the Canada Lumberman): The manufacturers of lumber at St. John, N.B., have had a rather mixed sort of a season during the present year and they are still in considerable doubt as to the outcome of the season's business. There is no question as to what would have been the result, had it not been for the fortunate and unusual fact that the markets for Canadian lumber in the Eastern United States have this year improved in a manner contrary to all precedent during a year which includes a presidential election. If matters continue to the end of the present season as they have been so far, it is safe to say that the manufacturers of St. John will have made little or no profit in the markets of Great Britain and that any success which they have had will have been the result of the improvement in the United States markets.

In a consideration of the lumber trade of the city of St. John, N.B., there are several factors to take into consideration which make the business different from the lumber trade at any other Canadian centre. Getting the logs from the woods to the city of St. John is an expensive process compared with the costs of logging at many other points. The drive is a very long one, amounting in cases to some four hundred miles. When the logs have once reached the mills at St. John, however, the manufacturers have the markets of the world at their doors, being able to ship by water to any foreign country in the world. They are not tied down, as in many other cases, to any particular lines of railway for the shipment of their lumber. They have both rail and water shipment at their service, although practically the whole of their shipments are made by water. Comparatively speaking, they enjoy cheap freight rates, which compensate largely for the additional cost of driving and handling their logs. There is another feature of their operations which is unique and affords a certain advantage. The general run of the men employed in St. John mills are more skilled at their work than the men employed elsewhere in Canada at similar work. The St. John employees in the mills are, in fact, a distinct class. They do not go into the woods in the winter, but are engaged in freight handling at the winter port during the winter months. For this reason they live all the time in St. John and become attached to the St. John mills and familiar with the work in a manner which is scarcely possible for mill workers in other parts of Canada who work in the woods during the winter and frequently find employment during the summer at different mills from those in which they were working the year before.

Peculiarities of the St. John Trade

The sawing operations at St. John are regulated chiefly by the demands of its two principal markets; Great Britain and the United States. The British market requires lumber of an average length of 13½ to 14 feet. The United States markets want their lumber of an average length of about 20 feet. The markets of the United States, which are reached by the St. John mills, are not the points which are easily reached by the inland mills. St. John mills catering to the United States markets sell almost entirely to points along the Atlantic coast and some of this stock is re-shipped to inland points. The trade therefore is entirely distinct from that of the mills of the middle west.

The specifications of the lumber sold from St. John are also entirely different from those of the middle west. St. John manufacturers prefer to saw three-inch stock for the British markets. This involves fewer saws and a greater output per day. They saw boards and 2-inch stock only when necessary. Most of their spruce boards are side boards, the centre of the log going back into thick stock. In Ontario and the middle west lumber is used in a different manner than in the Maritime Provinces. Boxes, for instance, are made more from inferior grades than from anything else, and the lumber for house building is largely of two inch. In the Maritime Provinces house building material is more frequently of three-inch stock. The idea of this is that cheaper grades can be used in three-inch and additional strength given to the buildings.

In Ontario the trade is practically limited to local and United States markets. Shipments therefore are almost entirely by the car lot. In the Maritime trade, shipments by vessel are the rule and they run up as high as five million feet to a parcel. A complete shipment in Ontario can generally be taken care of by a single firm. A shipment of some five million feet, which is frequent enough in the St. John trade, involves a very different method of procedure. If one company had to fill an order of this nature for a single vessel it would be necessary for the firm to congest its yard continually in order to have sufficient stock on hand. It would be practically impossible, moreover, to secure sufficient labor to load such a large order at once. For this reason the services of a middleman or wholesaler are required and a vessel is loaded from stocks at a number of different St. John mills. The currency in use in Ontario transactions, moreover, is all dollars and cents, and the measurements are all in thousand feet. In St. John the sales are made in dollars and cents for the United States trade and in pounds, shillings and pence for the English trade, while measurements are in thousand feet for the United States and in St. Petersburg standards of 1,980 superficial feet for the trade with Great Britain. There are therefore many additional complications in connection with the St. John trade. The manufacturers, of course, have long ago become accustomed to these complications, but nevertheless they are factors which have to be taken into consideration when making a comparison of trade conditions in the different sections of the country.

Difficulties in Securing Standing Timber

Then again, the methods of securing standing timber in connection with the St. John mills are complicated. In New Brunswick the timber lands are held by the government in part, and also by the old New Brunswick Railway Company. In the State of Maine where some of the New Brunswick companies also have timber holdings, the lands are entirely in the hands of private owners and have been subdivided into many small parcels as a result of passing from one generation to another. One single private land owner in the State of Maine, for instance, will often own a third of an eighth of a quarter of a sixteenth of a section. It is readily seen, therefore, that the acquiring of timber in that State is an affair of many complications and it has made it necessary in many cases to employ the services of brokers specially versed in the business.

It will be seen, therefore, that there is in connection with the lumber trade of St. John a great deal of complication which is not met with in other parts of Canada. When to this is added a situation like the present, with freight rates for ocean shipment making new high records daily, their position does not seem enviable to the lumbermen of central and western Canada, whose rates of freight are definitely fixed and need the sanction of the Board of Railway Commissioners before they can be legally altered.

In connection with ocean freight rates from Maritime Province ports it is interesting to note that the chief result of the advance which is now in force has been that a far greater proportion of the output than usual is going to United States points. So great has the shipment to the United States been, in fact, that there is some possibility of a slump in prices occurring in those markets if the heavy shipments continue. Ordinarily the United States markets are fickle and will take only a certain amount of Canadian lumber from the Maritime Provinces. This year they are fortunately in a position to take more than usual and the result is that they have been flooded and there is danger of the thing being overdone. The only relief which appears possible is an improvement in the English market. There are fortunately at present some indications of such an improvement taking place, as St. John exporters believe that some relief is likely in the near future, in the way of a reduction in the freight rates. Sailing vessels for the United States trade, moreover, are very scarce and there will probably be a necessary decrease in the quantity of shipments to these points.

Shingles in a Strong Position

The market for New Brunswick cedar shingles has been strong during the present year, owing to a strong demand in the Maritime Provinces and in the Eastern States. The cut of cedar in the woods last year was restricted as the manufacturers had not done well on shingles for some time. This year, therefore, with a good demand and a shortage of stock, the prices have advanced. All the manufacturers have extensive orders for shingles which they are unable to fill. Extras are selling at $3, whereas a year ago they only brought $2.50. Clears are bringing $2.50 as against $2.25 last year. The price of second clears to-day is $2.25. A year ago it was only $1.90. Extra No. 1's are now bringing $1.25 against $1.10 a year ago.

In discussing the shingle situation a leading manufacturer expressed the opinion that the New Brunswick shingle was a better

one than the B. C. Shingle of a corresponding grade, on account of its extra weight. The New Brunswick cedar, however, does not produce so high a percentage of high grade shingles. When the New Brunswick cedar reaches any size it develops rotten streaks which have to be cut out. In the west shingles are cut out of practically clear stock without any fault.

The grading of the New Brunswick and Quebec shingles are practically the same, being as follows:

Extras—Practically sound and free from any blemish.

Clears—Free of defects for six inches from the butt.

Second clears—Free of defects for four inches from the butt.

Extra No. 1's—Clear for four inches from the butt, but containing knots.

No. 1's—All that cannot be graded with the higher grades.

In addition to the above grades some mills make another grade known as "clear whites." This is a clear shingle containing sap wood. Mills which do not classify the clear whites separately include them in their extra No. 1's.

Probable Course of the Autumn Business

According to the opinion of the manufacturer referred to above there is little likelihood of the various manufacturers at St. John being induced by high freight rates to shut down their mills temporarily during the present year. Most of the mills saw a little pine and when there is any indication of the yards becoming overstocked they turn their attention to the pine, which is sawed slower and which can be held over if necessary, through the winter, as it does not deteriorate with keeping as spruce does. Although there was practically no spring fleet of tramp steamers this year the regular liners have taken a large quantity of stock from the St. John yards. During an ordinary year about eighty per cent. of the output of St. John goes to the markets of Great Britain. Most of the manufacturers foresaw the high rates of freight and did their best to get their deals away to the English markets by the winter liners. Although the freight rates on the winter liners were high, they carried large cargoes of St. John stocks. On the north shore, however, many of the manufacturers thought that it would be wiser to hold their stocks and depend upon a reduction in freight rates during the summer. In this hope they have been disappointed and the result is that stocks have been sold from these points during the present season at prices lower than they would have brought had they been shipped last year.

According to recent advices, stocks of St. John spruce at Liverpool and Manchester are heavier than usual at this time of year. On June 30th, for instance, the stocks this year amounted to 23,250 standards, as compared with 15,830 at the same period in 1911. In the years previous to 1911 the stocks were as follows: 1910, 14,240 standards; 1909, 16,410 standards; 1908, 19,060 standards; 1907, 27,030 standards; 1906, 14,330 standards. The consumption at these ports for the month of June, 1912, was 7,960 standards, and for the month of June, 1911, the consumption was 5,710 standards.

The Output of St. John Mills

When considering the trade of St. John it is interesting to note the capacities of the different mills located at this point. According to the estimate of one of the best posted manufacturers at St. John, the daily capacities of these mills are as follows:

	Lumber	Lath	Shingles	Staves
Randolph & Baker	90,000	62,000	.....	16,000
Charles Miller	45,000	30,000	120,000	12,000
Stetson Cutler & Co. (Indiantown mill	90,000	62,000	25,000	7,000
Stetson Cutler & Co. (Jordan mill)	50,000	30,000	90,000	
John E. Moore & Co.	45,000	30,000	.....	13,000
Murray & Gregory, Limited.	70,000	30,000	45,000	25,000
James R. Warner & Co.	50,000	30,000	.....	.....
Harry Miller	45,000	30,000	.....	6,000
Hilyard Brothers	60,000	40,000	45,000	6,000
F. E. Sayer & Co.	30,000	30,000	.....	6,000
Totals	575,000	374,000	325,000	91,000

In addition to the above products each of the mills which manufacture staves also turns out sufficient pairs of heading to accompany the staves. When considering the output of the St. John mills as compared with those in other parts of Canada it is important to note that they are operated on a nine-hour day. The sawing season lasts from about the first of April till the middle of December, making a season of about two hundred sawing days. Last year the sawing season was about two weeks short on account of a shortage of logs. This year the mills were about two weeks late in commencing operations.

Montreal Reports Active Business

Buying in Every Line Stimulated by Short Supply—Trade with U. S. Shows Considerable Improvement—British Exports About Normal

Montreal, July 10: (Special correspondence of the Canada Lumberman). From every quarter one hears good reports as to the volume of business being done—indeed, the only note of dissatisfaction is that supplies are not equal to the demand. Lumber of practically every kind is scarce, and although no doubt this condition of affairs will be altered by the new cut that is coming on to the market, the complaint of shortage is significant of the amount of business that is passing. Dry stock is almost impossible to obtain. Common grades, particularly of pine, are difficult to secure, and spruce is also in short supply. Shingles, too, are scarce. Naturally, quotations have stiffened and the prospects are that they will remain firm.

Trade in dimension timber continues good, and is likely to remain so.

Business with the United States now shows a considerable improvement, and those doing trade with firms over the border speak hopefully of this branch.

The exports to Great Britain are about normal. Shipments to the other side were affected for a short time by the lighter troubles in London, but these are now, to a large extent, over, and vessels tied up in that port have arrived in Montreal. As far as can be judged, the exports will be about the same as last year. Of course, prices have advanced, owing to higher freight charges and the rise in Canadian values.

Most lumbermen believe that the activity in Montreal lumber will be sustained for several months. Certainly there is every prospect of the building boom being maintained. The building permit figures show that during June the work contemplated was estimated to cost $1,718,505, a decrease of $62,355 as compared with the corresponding period in 1911, but for the first six months of the year the total, $8,065,993, exhibits a gain of $759,857 over the corresponding half of last year.

There are further complaints as to car shortage and delay in unloading at the terminals. Clearly the companies are unable to handle trade as quickly as it grows, and although there are abundant promises of improvement, these have not materialized to any great extent. If this tie up occurs now, what will it be in the fall, when cars will be wanted in the West to move what looks to be the greatest harvest that Canada has ever experienced? There apparently will be very few cars to take care of the lumber business and conditions will be worse than they were last fall.

In the pulp and paper section ground wood has been a little easy, but there are evidences of returning strength on account of the lowering of streams not only in Canada but in the United States.

Chemical pulps are a runaway market, supplies are very limited, and prices are different to quote, as they are advancing every week. The outlook is for higher values.

News print is strong, with practically no stocks at the mills, and heavy withdrawals on contracts. The advent of a new mill of large capacity has not weakened the market or caused any surplus, the product having been provided for before manufacture.

Northern Mills Are Busy

Business in the vicinity of Thessalon, on the Missisauga river, is booming at the present time. Most of the drives are in, although several are being held up owing to the breaking of dams. One dam on the upper part of the White River which gave way a short time ago carried away three dams with it which were below, with the rush of water and logs. The mouth of the Missisauga is a very busy place. A large crew of men employed by Eddy Brothers will sort over 600,000 logs there this season. Drives on the Blind river are coming along nicely. The mills are running full time, some of them night and day, and lumber is being shipped as fast as boats and trains can carry it away. There is a large fleet of boats at the present time loading at the North Channel mills. They will clear for Buffalo as soon as loading operations are completed, with prospects of a large cut this coming winter.

The Western Timber Co., incorporated in Maine, is one of the latest companies formed to operate in British Columbia. The capital is $2,500,000. The officers are: F. W. Browne, Chicago, president; H. D. Cone, Cedar Rapids, Iowa, secretary; Leonard Hills, Peoria, vice-president; H. T. Skillin, Chicago, treasurer; executive Daniel Wells, Detroit; Percy D. Hillis, Victoria, and Frank Y. Locke, St. Paul, Minn. H. D. Cone has been interested in timber on Vancouver Island for several years, as has been Percy Hillis, and it would appear as if the new company were a merger of interests.

The Personal Equation in Retailing

Showing the Business Value of an Intimate Knowledge of Human Nature—Adaptability, and What It Means in Trade Relations—Ancient and Modern Conditions

I heard a man make a remark the other day in talking about the pleasure there was in life for him. He said: "One of the most interesting things to me is there are no two individuals I meet who are alike." Ordinarily I would not have taken notice of it, because it is one of the commonest platitudes that we often hear. But the force of its meaning struck me, when I thought of its application to business life and particularly to that in a country town. As a matter of fact, the average business man in the city comes into direct personal contact with comparatively few of those who trade with him. This is especially true with the lumber dealer, whose chief business is done with the contractors and jobbing carpenters. I discovered this in my own case while in business here. I did business over the telephone with scores of people I never saw, and I wouldn't know them if I met them on the street.

In the country town, however, this is very much different. Farmers, of course, come to the yard and buy what they want and deliver it in their own wagons, and there are few townspeople who delegate others to do their buying for them. They come to the office and want to see the material and learn what it is going to cost. In this way the country lumber dealer meets in person with every one of his customers, and learns in time their peculiar characteristics of manner and their various methods of dealing, and the fact that country people in general have more individuality of thought and action than those who live in the large cities. It gives a peculiar zest to country business life that the city dealer knows but little about, and therefore the personal equation is an important factor in the trade of a country yard.

It is a wonderful faculty, this being able to meet these various individual characters, size them up, and influence them to harmonize with one's own interests. This faculty has a commercial value and a large one, too, for the man in business, and it is not infrequently that it enters into his basis of credit with those who sell him his stock. It takes the place of capital in many cases. I have an instance in mind of a certain merchant who has been running a general store in the same town for over twenty years, and all this time there has been a perennial prophecy that he couldn't last in business much longer. He has been close to the "jumping off place" a number of times, but his wonderful faculty of handling people and influencing them has enabled him to avoid going on the rocks of bankruptcy.

A Valuable Possession

It is this faculty in men that line yard owners are looking for in those they want for managers. They want men who not only are competent to manage a yard, but also who know how to manage the individual members of a community and the community as a whole as well. A country yard is a great school for the present-day young man. It always has been, but to-day there are new elements in a country yard business that did not exist when I went into it. The general level of intelligence among the country people in general is considerably higher than it was thirty years ago, and for this reason it requires a different class of business men to deal with it. It is not enough for a dealer to be on the same level in this respect. He should and must be a combination of the teacher and the master in his business relations with the trade. There is not an individual in the community he should not make a study of. He should know his personal connections with other men, his traits of character and temperament and particularly his "blind side." By this I mean his most approachable side and his susceptibility to be influenced by the one "working" on him.

There is one feature about the mail order business that has always seemed little less than marvellous to me. The idea of one man at his desk in a large city concocting schemes to get the trade of millions of people he never saw and knowing only of their existence by their names on his list, and still having the power of influencing them to send their money to him—a perfect stranger—is certainly a study in the power of human mind and human credulity. To counteract this and diminish its effects is the great problem of the country merchant to-day. It is not for him a question to be studied as a whole. On the contrary, he must realize that it is largely a personal matter and personal relations with the individual members of his trade family, for, in a sense, they are his family. They are dependent on him, and he on them, and both should have a clearer understanding of this interdependent relation than is the case now. A community is but an aggregation of separate families. Each individual in a community represents so much of what we term trade. This is greater or less, according to the respective means and purchasing disposition. To secure this is the province of the local business man. To accomplish this he must be able to exert a stronger influence than any one lese. Here is where the personal equation should show greater strength than the influence of a distant stranger.

"Getting Next" to Your Customer

The slang phrase "getting next to a man" has an expressive meaning to it in this connection and implies the paramount influence which one has over another. It further implies the ability to understand him, his wants and his inclinations and temperament. But, for the purposes of business to understand all these is not wholly and always sufficient.

There is another important factor that enters into the question of securing an individual's trade and that is self-interest. Therefore he must be shown and convinced that his interests lie in giving his trade to the home merchant.

In business relations, self-interest is generally stronger than friendship, gratitude or any other obligation, and of late years the increasing prosperity of the farmer has caused the country merchant to give it his particular notice. There was a time when he counted on past favors to retain the farmer's trade, but those have been sponged off from the farmer's memory by the consciousness of his present financial independence, and this has led him into the false notion that the merchant or middleman is a burden which should be eliminated.

Self-interest is one of the fundamental laws of human nature, and is a factor that every business man should have constantly in mind when considering his trade relations with the individual when the latter has his own freedom of action, as the average farmer, for instance, has at the present time. In the early pioneer days the feeling of self-interest was as strong in the farmer as it is now in the days of his prosperity, but it was subject to the control of conditions that produced a forced obligation and dependence on the local business man. Being free now from these conditions the merchant no longer has the hold on him that he once had, and largely for this reason he is confronted with the difficult question of making the farmer understand and realize that it is for his self-interest to co-operate with the merchant in preserving the interests of the town as a whole. Furthermore, and primarily, he must convince the farmer that he can do as well in trading with him as he can with the stranger in the distant city. But convincing him is one thing; teaching by doing is another, and this comes down to the last analysis—the merchant himself. There is a new farmer now and there must be a new class of merchants to correspond.

Conditions Have Changed

The old conditions that affected the one and influenced the other have passed away, and consequently the changes that have put the farmer on a higher level of independence must necessarily evolve a better class of merchants to meet the new conditions that the change has brought about. Few of the older class of merchants are willing to adjust and adapt themselves to the new conditions and therefore it is the younger men in business who are called on to meet and deal with the younger farmer, who is responding to the influence of the scientific methods of the new in merchandising. He has got to be a better business man than his father, or he will lose out in the contest with the younger farmer, just as the latter will lag behind if he follows the old methods of carrying on the intensive merchandising and there is no escaping this fact that is becoming more widely developed every day.

The younger generation of farmers are being educated as business men to conduct their farming operations on a business basis. So likewise must the merchant study his goods, his methods, the scientific principles of salesmanship, and above all the nature and characteristics of the individuals in his community. The scientific farmer studies first of all the properties of his soil, gets acquainted with its essential qualities and from this knowledge he adapts the seeding and cultivation of his crops. So in a corresponding manner should the present-day merchant regard the community as his farm and develop its greatest yield of trade possibilities.

The Old Rule Must Be Qualified

The old-time phrase, "Treat every one alike" that was commonly used in business advertising, has a "catchy" sound and meaning, and takes well with the average person who is unacquainted with the inside of business transactions in general, but practically, it is mean-

ingless in the actualities of dealing with individuals. Of course, this don't apply, however, to the general rules of courtesy and respect, which are among the social amenities that endure from one to another, and the fair treatment accorded to all customers alike. But when it comes to the soliciting of business, the selling of bills, extending credits and the collection of accounts, and all those things that touch directly the self-interest of the individual, the treatment has to vary according to the various differences, in the character and temperament of individuals. We realize this more as we become better acquainted with our trade. I have managed yards in a number of towns, and when I just began in any one of them it was natural that I should treat everybody alike in a general way. As I got better acquainted with those I came into contact with in business dealings, and found out more of their peculiarities, I had to adjust my treatment of them accordingly and the longer I stayed there the more often I had to do this.

An extended period of years of doing business in a place gives to a business man a deeper knowledge of each individual character with whom he has a business contact. He knows how to handle every customer that comes into his yard, and his ability to do this without the customer knowing that he is being "handled," marks his success in holding the trade of his yard. There is a certain pleasure and sense of power in the exercise of this knowledge and ability that every business man of long experience is conscious of. It is one of the fascinations of the business game. How often it is, that in dealing with certain types of customers is like sitting down and playing a game of skill with them. The better you know their nature and characteristics, the greater are your chances of securing what you are playing for.

I have often remarked in these columns, that you never really know a man until you have had business relations with him. If you have not been very long in a town there are many times when, in dealing with a certain individual, you will make a mental note of the fact that you will know better how to deal with him next time, and after several experiences with him you will know just how to take him when he comes for his purchase.

There is a difference in the trade characteristics of nationalities also. While every community is more or less of a mixed character in this respect, there are some where a particular one most predominates. Take a manager who has been running a yard for some time in a community composed largely of American-born people and transfer him to one where the majority are foreign born, Swedes, Bohemians, or any other nationality speaking a foreign language, and besides the routine work of the yard, he has a bigger job on his hands to familiarize himself with the habits of thought, peculiarities and ways of doing of the human units of his trade. He has got to learn to look at business matters from their point of view and adjust his own ways to theirs.

A Liberal Education

It is a liberal education to come into business contact with the "Tom, Dick and Harry's" of the various nationalities in this country. And I count myself fortunate in having had more than the average experience in this respect. I think though, the most interesting of all my experiences in this line was with the colored people. My seven years' residence in the south made me acquainted with the peculiar attributes of this race of people. I early discovered that they had to be dealt with in a sense as children. 'Tis true, they are much more developed as a people now than they were then, a few years after the war. But the average Negro still retains more or less of the credulity and irresponsibility of a race in the earlier stages of its development.

An old philosopher has handed down this nugget of advice, "The proper study of mankind is man," and applying it to the following of a business life, it means that to study your business, you must make a separate study of the individuals you trade with. It is not enough to be able to call them all by their first names, or know what political party or religious sect they affiliate with, nor even their financial ability to pay their debts. These are all important and essential, but what you need most is to be able to know the leading strings of their characters and the responsive parts of their natures. But, in order to be able to control others, you must be able to have perfect control over yourself. And above all, never lose control of your temper, at least in the presence of other people. A man can lose more in a minute than he can gain in a year by letting his temper get the better of him in the presence of another of a high strung temperament. I know it is a great strain on one sometimes not to feel at liberty to give expression to what he feels, and care must be taken to keep it not only out of the expressed words, but from the tone of the voice, the look of the eye, and the action of the body as well. To be able to govern one's self is one of the greatest assets a young man can have.—C. H. Ketridge, in the Mississippi Valley Lumberman.

Salesmanship—What it Involves

At a recent meeting of the National Association of Lumber & Sash & Door Salesmen an address was delivered by I. H. Fetty upon "Salesmanship." Mr. Fetty's remarks were as follows:

The question of the proper marketing of lumber, or any other commodity, I believe, is one of the most important questions connected with any producing industry . . . . Lumber probably is one of the poorest marketed commodities brought before the public to-day, especially from a manufacturer's standpoint. This condition exists solely for the reason that the manufacturer has not been able to arrive at a uniform cost of production, including the cost of raw material. Were the manufacturers to arrive at a legitimate comparative cost of producing lumber they would be relieved of a great many worries connected with the proper marketing of their output, for the reason that it would enable them to know exactly what their finished product cost f.o.b. cars, based upon present value of stumpage; then they could say to their salesmen: "Our lumber cost us so much f.o.b. cars, and it is necessary for us to have a legitimate profit over and above this cost." However, under the present mode of manufacturing lumber there is no basis of cost established. Therefore, one manufacturer will operate his business based upon a certain cost, and another manufacturer according to his views, and there will possibly be a variation of from $1 to $2 a thousand as to what each manufacturer figures his stock has cost him f.o.b. at the mill. This naturally brings about a chaotic condition of the market and results more or less in the travelling salesman advising the manufacturer what he is able to sell his lumber for, rather than the manufacturer being able to say what his lumber is costing and what it is worth. . . . The salesman should understand fully the requirements of his territory and not mislead his customer in any way by misrepresenting true conditions at the mills as to time of shipments, conditions of lumber, etc. In other words, stick to your stock sheets and do not knowingly oversell the mill on anything which it can not furnish immediately, for the reason that when you are crowding your shipping department to get orders filled it naturally results in your shipping lumber before it is in proper condition. This means that it weighs heavier and costs your company extra money in the way of freight, your customer is dissatisfied, and you will find that instead of enjoying his full confidence as you have in the past, you are now placed in competition with a class of manufacturers or jobbers who do not handle their own lumber, and you are compelled to sell your lumber for less money than you should secure for it, owing to the fact that you have misrepresented your company to your customer.

Do not overlook the fact that you many times make your company money by refusing to accept an order. In fact, a good salesman will refuse to book an undesirable order with as much grace as he would book a satisfactory one, and retain the good will and respect of the buyer by showing him that he knew his business and knew when to meet conditions. A thoroughly posted lumber salesman should know what his lumber is worth and quote his price with confidence, and not permit the buyer to dictate to him what he should sell his lumber for. In other words, he is selling lumber for the company by whom he is employed, and should not permit the prices quoted by other concerns to influence him in placing a market value upon his company's product, because there are many conditions surrounding the offer made by his competitor, that while his price may be lower, time of delivery, quality of stock, and general business methods may be such that he would not be considered competition. The salesman should keep away from the idea of cutting his price in order to secure business, because it is not the "quantity-getter" who is the money-maker for his company, but the salesman who uses his good judgment and sells the kind of stock that his company wants to sell and gets the price for it.

Salesman Should Have Full Authority

Another feature which I think is poor busines policy is to take an order subject to confirmation by the general office. This practice, as a rule, places the salesman in what you might term a secondary position with his customer, indicating to him that he is not confident what his firm can do in the way of shipments, or fully posted as to what price may govern. I think a salesman should be thoroughly posted on these conditions, and when an order is taken it should be bona fide, and it should be thoroughly understood in the general office that shipment will be made accordingly.

A salesman should always sell his own lumber upon its merits and not attempt to sell it by trying to depreciate the value of what his competitor has to offer. In other words, be content with knowing all about your own business, and keep in mind the Golden Rule "Live and let live."

Now, getting back to the manufacturing end of the business. I have always believed that if lumber was of sufficient value to spend large sums of money in its preparation for the market, it was certainly worth due consideration in placing it upon the market in proper shape. Therefore, every manufacturer who is able to produce his lumber in

a first-class marketable condition should be represented direct to the trade by his own salaried salesmen who are thorough lumbermen. I believe such manufacturer will reap much greater benefits than disposing of his output in a haphazard way through other channels having no interest in the net profit in the business.

It is regrettable that an industry of the magnitude of the lumber business, and where conservation of raw material is of such vital importance to the future welfare of the community, that the manufacturers can not commune to the extent of arriving at a proper cost basis of the finished product and thereby be in a position to indicate to their sales offices what their lumber is worth and what it should be sold for. This would mean a legitimate profit for the manufacturer and a steady and stable market for the consumer, which would be a satisfactory condition for all.

Advertising to the Consumer and Retailer

Leonard Bronson, manager of the National Lumber Manufacturers' Association, who has been keenly interested for some time past in the great question of the increasing use of substitutes for lumber in numerous channels of consumption, recently issued to the press the following communication on the subject, which is of interest to the trade at large.

The advertising by which substitutes for lumber have been pushed out of and beyond their proper place has had its effect not only on consumers, but on some of the elements in the lumber business itself. It has been greatly changing the character of the retail lumber business until in many cases the retail lumberman can hardly be called such, but rather is merely a retailer of building materials.

So far as these changes have been in the line of progress, so far as these substitutes for lumber are better than the material they displace for given uses, there is no special reason to complain, although sentimentally the retail dealer who calls himself a lumberman may well regret the old days when he did not have to bother so much with cement, lime, brick or various kinds of roofing material. The trouble is that many of the changes are not truly progressive and are unnecessary.

The retail lumber business has changed, chiefly, of course, because of changes in the demands of the community; but these changes have come about very largely through advertising of materials which can be substituted for lumber. The house-builder is by advertising impressed with the idea that he should build his house of cement or that his porch should be of cement or brick or that instead of shingles he should use some kind of roofing paper, considering the fact that slate or tile is too expensive for him. The farmer is led to experiment with all sorts of substitutes for fence posts, for silos, for floors in stables and granaries, and the retail lumberman who wants to hold the trade in building materials must, or feels that he must, cater to the demand.

In most cases the retailer makes the change in his business and stock on hand somewhat against his will; but even he is often impressed by the advertising which influenced his customers, and often advocates the use of the substitutes even where good judgment would suggest sticking to the old materials. So he joins with the trade foes of wood.

Some peculiar facts have developed in connection with the handling of some of the substitutes by retail lumbermen. For a long time the retailers have been fighting the mail order houses, yet in straight lumber commodities the competition with the mail order house was not commonly very serious. Occasionally the local lumberman could take care of this competition, for it was in his particular line, and he was well prepared to meet it; but with a good many of the substitutes he is not at such an advantage in experience and intrenched position. Consequently the lumberman who has allowed the consumptive demand to change from wood to something else has found, must to his disquiet, that he has to meet in these other lines a much more acute and dangerous competition from the outside than he ever had to meet in wood.

For example: a retail dealer finds that his customers are demanding certain brands of prepared roofing in place of shingles to be used in places where he knows that shingles would be decidedly better. But there may be a little special profit in them and so he readily yields to the new demand, puts in his stock of these things, some of which are cheap and nasty and may even advocate their use, thinking perhaps that in two or three years he will have the sale of another lot of this stuff to replace that which he is selling to-day. But he soon finds that it is just this sort of material which the mail order houses are especially fitted to handle and for which they have special advantages. They can buy by the train load where he buys by the car load or less. It requires no special skill or experience to sell it. There is no chance for the exercise of the lumberman's ability to suit the grade to the use, and soon he finds that he has lost his shingle business and has nothing to replace it except at the cost of constant and strenuous competition with the catalog houses.

Gradually the retail lumbermen are waking up to the fact that the substitutes are injuring their business; that wood in its legitimate place is one of the greatest and best of natural building materials and that, except for the substitutes which are demanded by genuine development, which mark a progress toward better building and better homes and better construction generally, he would do better to foster the use and sale of wood. But even yet there are many lumbermen who have yielded to the blandishments of the substitute makers and sellers—yielded unnecessarily and do not yet realize what they have lost and are going to lose.

The general advertising campaign of the National Lumber Manufacturers' Association in behalf of wood must therefore be directed to the retailers as well as to the consumers. Primarily to the latter, for after all a merchant has to sell what his customers want, but the legitimate and wise retailer has not a little to do in determining the wants of his customers. He can from his standpoint of greater experience, by his knowledge of materials and the uses to which they are fitted, give sound advice to his customers which in many cases will be heeded and in all cases will make an impression.

The wood advertising campaign, therefore, will seek to instruct and direct the taste and common sense of the consumer in behalf of wood, but should also reach the retailers with the information they need to develop their business along the lines of permanency and profit.

Advertising to reach the people to whom it is directed must run in the proper channels. Therefore, the ordinary consumer must be reached through the publications to which he subscribes, and especially successful in reaching the consumer is the advertising in weekly and monthly journals which are taken and read by the great mass of the people—the publications which enter the family and are read, reread and studied from the first page to the last. Such are the popular weeklies, a number of the popular monthly magazines, the farmers' papers and to a certain extent those which most generally reach the women of the land. In special classes are the architects' and carpenters' papers and the journals of lines of manufacture for which wood is an important raw material. The mediums which reach the ordinary citizen all reach the retail lumberman as well, but they do not reach him with the kind of business appeal which is needed to assist him in his own campaign for a more profitable and stable business. The only publications which reach the retail lumberman in this way are the lumber trade papers, and so in a comprehensive campaign designed to reach both the consumer and the ultimate handler of lumber commodities, both the general and the special classes of publications must be used. And the retailer himself must advertise if he would develop his business to its largest volume and keep it in the lines of substantial and enduring profit. This he will do through the local paper, and in this work he should have the cordial assistance of lumber manufacturers and wholesalers and of the lumber trade press itself.

The money that will be expended in the general advertising to consumers in promotion of a greater use of wood will not be diverted from other lines of advertising. It is money especially raised to meet a special and comparatively new exigency. The old needs for advertising remain, and they will be revivified and enlarged by the new developments. The fact is that lumbermen as a class have never advertised extensively enough, nor have they usually advertised wisely. There are many lumber trade journals well supported, and yet the entire advertising of the lumber industry, one of the greatest in this country, has been insignificant compared with that of many other lines of less importance and minor magnitude which by the power of advertising threaten the welfare of the entire lumber fraternity. The new campaign of advertising on behalf of wood will result in better advertising, more effective advertising and, therefore better results from the money expended in this way by all classes of lumbermen.

Messrs. J. M. Clifford & Co., of Detroit, Mich., one of America's foremost hardwood firms, whose advertisement appears elsewhere, are in a position at the present time to make prompt shipments, as they always have cars on the track to take care of the rush orders. This firm carries an exceptionally large stock of hardwoods, 90 per cent. of their supply being obtained direct from hardwood mills in Kentucky, owned by them. They claim to have on hand at the present time, absolutely the largest stock of hardwood lumber ever carried by any firm in the state of Michigan.

A Weak Spot in Cost System

There is a weak spot that clings to factory cost systems so closely that it is often overlooked; and, hard as it is to see and weigh up, it is harder yet to get rid of, says the Wood-Worker. That weak spot comes from the knowledge or consciousness that time is being kept and that a test is being made.

This is a matter that has been touched on in these columns more or less in certain of its phases. It was taken specific note of at a recent gathering of box manufacturers, especially in a discussion led by Mr. Goodwillie, a prominent and well-known box manufacturer, who told of some test runs and then pointed out the misleading weaknesses of these tests.

"The first weakness is," said Mr. Goodwillie, "that the test is made under the best of circumstances, with everything working toward the test. Perhaps the workmen do not know anything about the test, but the superintendent does, and generally he arranges things so that the test goes right along and everything is done in the very best manner."

This is the whole thing in a nutshell. If there are tests or time runs being made for a cost basis, they will prove misleading unless one takes into consideration this weakness and makes a reasonable allowance therefor. And it makes no difference whether that test is for labor cost alone, for lumber waste, for machine capacity, or what—that weak spot clings round it just the same.

There is a reply to this argument, the taking of the position that to eliminate this weakness one should have every man at work keep a record all the time and account for all his time every day. Then the time lost between jobs, "whetting," etc., is accounted for and the result is positive.

But that merely changes the form of the weakness. The aim of all this cost-accounting business is not merely to find out what it is costing to run your factory and do certain work, but also includes as a prime factor the finding of opportunities to increase efficiency and reduce cost wherever practical.

Then the men keeping records of all the work they do during the day are dividing both their time and their attention, and giving part of it over to this record-keeping. This of itself is non-productive, so the time used here is taken from the productive work, and it adds just that much to the cost of production.

To specialize and reach the highest point of efficiency a man at work at either machine or bench should concentrate his thought and energy on the work he is doing, and the fewer things that come in to interrupt the better. Cost-keeping is one thing and machine work is another, and it is hard to weld the two together without producing a weak spot—which may not be so bad if we see and recognize that weak spot, but if we overlook it we are likely to err in our calculations.

The Need of Good Filing Room Equipment

What gives a man more pleasure than to visit a mill where everything is humming a merry tune with the work coming out in fine style. Visit the first up-to-date mill you can find, writes J. E. White, in Berlin Quality. Take notice of things in general. See anything unusual? What you see is a well laid out mill plant equipped with latest machines.

Notice how everything is in its place. The machines are well kept and look as if they had a daily cleaning and the floor looks like it had come in contact with a broom quite often. Overhead you will find a sprinkling system of the best type, as no manufacturer would think of building a good plant and installing the latest machinery with no means of fire protection.

How about the efficiency in this plant? Compare it with a less modern equipped plant. You have heard the remark: "Why that man can build a house with a saw and a hammer." What's the efficiency of this man using a saw and hammer compared with a carpenter using a good kit of tools and up-to-date methods? What's the difference in the quality of work being done by the man with a saw and hammer and by the man using first class tools? Considerable difference, Isn't there?

Is your mill equipped with the same degree of efficiency as the man with a saw and hammer? If it is, it costs you 100 per cent. more to turn out a lower grade of stock than this up-to-date mill in twice the length of time needed there.

In using fast feed machines you can decrease the cost of manufacturing, raise the grade of your stock and get the profit that belongs to you.

How about your saws? Are they standing up and doing first class work; if not, what's the use of running poorly fitted saws on a good band mill and lowering the efficiency of that machine?

Is your filer a competent man; if he is, what's the trouble? Nothing to work with. How can you expect him to fit saws without a set of proper tools. The filing room is the most vital part of a mill plant. One man claims it is the heart of the saw mill, not only of a saw mill, but of any woodworking plant where a filer is employed.

It must be well equipped and a good mechanic in charge to fit your saws. Otherwise poor results will be obtained. It's a hard matter to figure as to the number of tools needed to fit your saws, but if only one band mill is used it will not require large expenditure of money for tools. In fitting up a filing room the following outlay must be used: a grinder, tension rolls, leveling slab, a swage and swage shaper, or your resawing will always be a source of trouble.

Sending your saws out to be fitted is costly and is lots of bother. The money spent in this manner would soon pay for a filing room. You may not have enough work for a regular filer in a small plant, but it will pay you to keep one as he could look after the belts, run the resaw, etc.

A good many small plants are doing this successfully, but in a large plant where one or more band mills are used, a filer to do his work properly will have no time for other work. It is the practice of some plants to keep a filer busy on work not belonging to the filing room, causing him to neglect his saws and reducing the capacity of the band mills. This practice is applied to cut down expenses.

Mr. Manufacturer, the profits of your band mill lie in the hands of your filer, and when your filer has more work than he can successfully see to, you are losing a part of your profits.

I had the occasion to visit a mill plant sometime ago in which is a single band using 12-in. saws of 14 gauge, a 12-in. shot gun feed, a gang edger, steam nigger, a well equipped filing room, and in fact it is a modern mill throughout and a little faster than the average mill.

This mill was built to cut 40,000, it has cut 47,000. At the present time this mill is cutting 24,000 feet of lumber a day on the average. Enough money was spent to build a 40,000 capacity mill, why not cut 40,000?

It cost the same to run this mill whether it cut 40,000 or 24,000 feet of lumber but the Superintendent of this mill couldn't see it that way so he decided to cut expenses. A filer in a mill of this size isn't overworked so the Superintendent discharged the millwright and now the filer is holding two jobs for the same wages. Not very much of a saving in expenses compared to the profits they are losing by lowering the amount of lumber cut daily.

Ever step into a filing room in which the filer didn't have time to talk to you? Something wrong there. When a filer is taking things easy you can guess that everything is running O.K. and the mill is cutting up to its capacity.

There is another way to cut expenses and that is by installing up to the minute methods of manufacture. Then you can reduce your working force, increase the output of your plant, improve the efficiency of your men, and get the difference in profits between good and poorly manufactured stocks.

The loss here is at once evident, and when it could so readily be done away with, the installation of an Equalizer looks to me like an investment that would pay in every case.

In the case of the shook makers, the Equalizer is indeed an investment. Old style Cut-Offs are not accurate enough to make a perfect box. The result has been in many cases, especially in the past two or three years, that people who must have accurately made boxes have been driven to use boxes of wood substitutes. These are always accurately put together.

The large capacity of hopper fed equalizers adapt them for use in the largest plants and gives them an elasticity of production that provided for future increase in business. Only last month this paper printed a letter from a user of the Berlin Equalizer in which they stated that their machine took care of an increase of one hundred per cent. in business. This firm had standardized their product to the point where large capacity machines were a necessity and I dare say could not afford to be without this machine.

The hopper feed on this equalizer reduces the number of motions of its operator to the point where even the "scientific management" men could find little fault with it. Operators simply pile armfuls of stock in the hopper and the machine "does the rest."

If managers and superintendents would walk about their plants with "seeing eyes," I reckon that more Hopper feed Equalizers would be working than are at present.

"Steam Machinery," a monthly magazine of men, machinery and methods, intended especially for the lumberman, the contractor, the railroad-builder and the excavator, will commence publication before the end of this year. Accepted articles will be paid for immediately after publication, not at a word rate, but at a rate determined by their interest, value and originality. The magazine will be edited for the Clyde Iron Works of Duluth, Minnesota, by Charles H. Mackintosh, to whom all articles should be submitted.

Mr. J. W. Brankley, who succeedes Mr. Rundle, has been associated with the International Paper Co. of New York for a number of years and brings to the management of the Miramichi Lumber Company a ripe experience in the lumber, pulp and paper businesses.

Problems of Factory Electrification

Adaptability and Economy the Most Important Considerations—Determination of Power Needs—The Grouping of the Machines—Comfort and Convenience of Motor Control

By W. B. Wreaks

Correct solution of the power problem is of the utmost importance to all manufacturers. Consideration should be given the question from several points of view, and a system selected that will meet not only the immediate requirements economically but also permit suitable further expansion without undue expense.

Expert is Essential

There are so many factors to be considered, weighed and averaged to obtain the best net results, that the average foreman, superintendent or manager of a factory, who may be fully up-to-date in the line of work for which he is employed, can no more keep properly informed on this specialty and be qualified to assume charge of such work than a layman can properly prepare himself to argue an intricate legal case or do the work of a physician or surgeon.

The two important features to be borne in mind in adopting a system of electric drive are, in the order of their importance, adaptability and economy. Too often the first, and most important, feature is overlooked in an effort to keep down the initial investment. Yet this is the consideration that requires expert knowledge and practical experience to determine, for each particular industry, the arrangement and equipment best adapted to the requirements of manufacture.

The items represented by interest on investment, as well as the cost of maintenance, must of course be added to the cost of producing power to determine the economy of the plant, but it is often false economy to permit this feature to outweigh the proper method of drive, the right application of motors, and the correct selection of type and size of motors to obtain the highest efficiency of production, individually and collectively, from the machines to be driven.

It is the object of the manufacturer to make his product as well as it can be made and then to effect all possible economies in method, system and operation of plant in order to obtain, under these conditions, the highest net profit.

The ideal installation, from the point of view of convenience and flexibility, is the individual driving of machines by their own motors, each motor adapted especially to the requirements of its machine. This feature can be carried too far, however, resulting in an unwarranted expense for the results accomplished.

Determining the Drive

The work of the industrial engineer is to determine how far to adopt the individual drive method and what machines can be driven in groups and still obtain a method of drive that will produce approximately the desired results. It is thus of importance—first, that the manufacturing conditions and work to be performed be investigated and second, that systematic and intelligent analysis of power requirements be made by some one with an expert knowledge of the characteristics of the individual tools and machines, and how they should be operated, before deciding on the system of motor drive to be installed.

In considering the feature of adaptability proper consideration should be given to the following items:

The proper grouping of machines to give the best sequence of operations in the different stages of work for the particular articles to be manufactured.

The manner in which each tool or machine must be driven to produce the best work economically, which determines the required speed adjustment and control; the advisability or necessity of independent or individual drive, and the proper torque and speed characteristics of the motor.

The position in which tools or machines should be placed to secure good light and convenience of operation and control, so as to obtain the highest efficiency from each operator, this often determining the question of individual drive versus belt drive from line shaft.

Power Transmission

The advantage or necessity of rigid transmission of power to the machine, determined by the importance or necessity of uniformity of speed, often making it imperative to drive by individual motor so as to eliminate speed fluctuations, which are impossible to prevent in line shaft drive, with its varying bearing friction and belt slippage, and surging under changes in load.

The arrangement of plant, both as to location of machines and selection and application of motors, so as to most readily provide for extensions required by enlargement of the manufacturing plant, increase in facilities of operation or rearrangement of machines to meet changed conditions or methods of manufacture, this often having an important bearing on the method of drive.

Having determined upon the most suitable method of electric drive, and the machines that should be driven in groups and those that should be driven by individual motors, it is then necessary to make a careful study of power conditions, so as to select the proper power equipment and the proper motors to give the highest efficiency of operation.

An important factor to be considered is the advisability of purchasing current from a central station, if such current is available and suitable; or the installation of an independent power plant in the factory, and, in the latter case, determination of the size, type and characteristics of generator and of prime mover most suitable to meet the motor requirements.

In general it is safe to say that the purchase of power should be given serious consideration, even though it may appear that the power rates quoted would make the cost of power slightly more than the cost to produce it with an independent power plant.

Providing the Power

Providing the local power company is equipped with modern and suitable apparatus and a progressive management, offers satisfactory assurance of the continuous delivery of current at a reasonably constant voltage and in sufficient volume to meet the requirements at all times, there are many advantages in purchased power, entirely apart from the question of a saving in power cost, as for instance: Flexibility of installation, with means always to provide for extensions or to meet temporary demands for increase in production, without having to make any changes except perhaps the installation of one or more additional motors. Frequently the motors already on hand will take care of the increased demand through their overload capacity, while additional demands might readily overload the private power plant to a dangerous extent.

If the power requirements are reduced, owing to slack times, or to shutting down part of the factory for any purpose, there need be no reduction in efficiency of operation because of the necessity of keeping an independent plant running to provide an amount of power much below its normal capacity.

Power is available at all times, day or night, to provide for overtime operation, without the necessity of keeping up an independent power plant and paying wages for overtime or for any extra fireman or engineer.

There is less risk of stoppage or interruption of service from a central station that is properly equipped and well managed than from an independent plant, due to breakdown, strikes, or other causes.

The factory may be started more quickly, as there is no necessity of getting up steam in boilers or of going through numerous preparatory operations in getting a gas engine plant into commission.

Determination of Power Needs

In making selection of proper motors, the value of experienced expert advice is almost indispensable, as a careful and intelligent series of tests must be made to determine the power required to drive each group of machines and each machine which is to be independently driven, and the type and characteristics of motor to be used for each class of service.

In determining the power required in an engine-driven plant with line shaft and belt transmission, it is not entirely satisfactory to employ the method frequently adopted, of indicating the engine and cutting off parts of the plant in sequence to obtain the power required for the different groups or individual machines, and then cutting off all machines to obtain the transmission losses, as this method is, at best, inaccurate and does not account for the live load bearing and belt friction losses, which in many plants amount to a considerable percentage of the total losses; nor does it give a record of the time factor in the operation of individual machines; or the variable losses due to changing or intermittent loads; and it does not give the load cycle of machines operating with a periodic load variation, such as punches, presses, planers, etc.

The most reliable method of determining power requirements is by a temporary installation of one or more motors to drive the different machines or groups. Tests can then be made which will give curves of power consumption and speed variation, and from this data the size of motor can be accurately and positively determined as well as the speed and torque characteristics, the speed re-

gulation and control, and the proper overload capacity required to operate machines under most efficient conditions for the work to be accomplished.

Selecting Suitable Motors

The selection of suitable motors from this data can be made only from a thorough knowledge of motor design, in order that the motor selected for each machine or group of machines will have the proper inherent characteristics.

Certain classes of machines require, due to their specific load conditions, a form of speed control that can not be efficiently obtained with alternating-current motors, and in such cases they should preferably by driven by direct-current motors, even though the general adoption of an alternating-current system requires the installation of apparatus to convert a portion of the power from alternating to direct-current for this purpose.

Other types of machines, while operating at variable speed, will have load characteristics that will permit the use of alternating-current motors with good operating conditions and efficiency.

Some machines will require motors with very heavy starting torque, though running under light loads when up to speed, while others will have very light loads at starting but may require motors of large temporary overload capacity.

All of the above and many other operating conditions enter into the problem of determining the proper motors to give the best average or net results, and their proper consideration is vital to the success of the installation.

Electric motors will carry overloads beyond their normal capacity, but motors are built to carry overloads of different values, all the way from 25 to 100 per cent. above rating, and for different periods of duration, and these facts should be taken into consideration in making a selection.

The Making of Quartered-Oak Stock

By Chas. J. Brey

Throughout all the fluctuations of a changeable market in hardwoods, no wood has held its price so well and steadily as quartered oak. It would seem that the law of supply and demand is, after all, the real dictum of price in such commodities as are not liable to be cornered, and the bearish element has no noticeably depreciable influence on the market. In this case there is perhaps no probability of any slacking in demand or depreciation in price until the cost approaches that of other high-class furniture woods, which are, in consequence, given the preference, for it should be borne in mind that the public taste is easily turned to other woods that have been neglected, yet are not only serviceable, but often beautiful as well, when properly handled and finished. With quartered oak nearing the price of mahogany, the latter wood is enjoying an unprecedented demand, and its richness of figure retains all the distinctness it deserves in the higher grades of furniture and interior finish. But plain mahogany itself is given a preference that may react upon oak in an astonishing degree.

It is true that oak fills a place so distinct that none other may take its place in its entirety. The ease with which it is finished and the hard usage it endures have given it such an eminent standing as a furniture wood, as well as in all its other utilities, that it will ever be in favorable demand to the last—and that last, as pertaining to quartered oak in merchantable quantities (one is not encouraged to specify quartered white oak), is not so far distant, for it requires from medium to large trees to permit quarter sawing, and trees of that size cannot be grown in a generation. So let us consider the best way to lengthen the days of quartered oak, to make the supply we have as elastic as possible. It would be useless to attempt to curtail the output, as every timber owner has his mind's eye on all the large oak trees that permit quarter sawing.

The one way to make a tree or log go farthest, considering surface measure, is to convert it into veneer. It requires a good class of timber to make good veneer, but the demand and price for flitches is such that it is worth while for any mill man who has even an occasional carload of such logs, to separate them and either sell them as logs to veneer manufacturers who own their own mills, or to saw them into flitches. The latter would probably appeal most to him who desires to keep his mill running; and, often, one finds logs that, while they would not be classed as merchantable veneer logs, will make some good flitches. Of course, the best, largest logs should be reserved for veneer. This often arouses the objection of the lumberman, he claiming that the impoverishing of the upper grades depreciates the value and the marketability of the lumber beyond the advantages gained in flitches. A close investigation of the matter, however, proves this erroneous, and while monetary results must be left to individual price lists, a comparative list of the results in board-feet measurement may be found of interest.

In the sketch a 36-in. log is dissected, with results as given. According to Scribner, a 36-in. log 12-ft. in length contains 768-ft. board measure. Now it is usually considered that a loss of twenty per cent. results in quarter sawing. However, a statement by a veneer manufacturer that he obtained the amount of flitches in feet, board measure, that were credited to the log scale, seemed unusual, and led to further experiments; for it should be borne in mind that the veneer trade demands the best figure obtainable, also the greatest widths; in fact, such stock is at a premium.

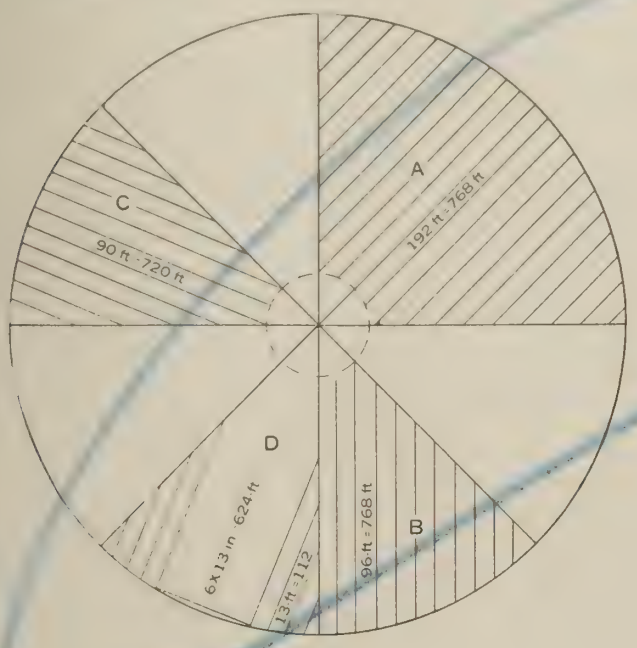


Fig. 1.

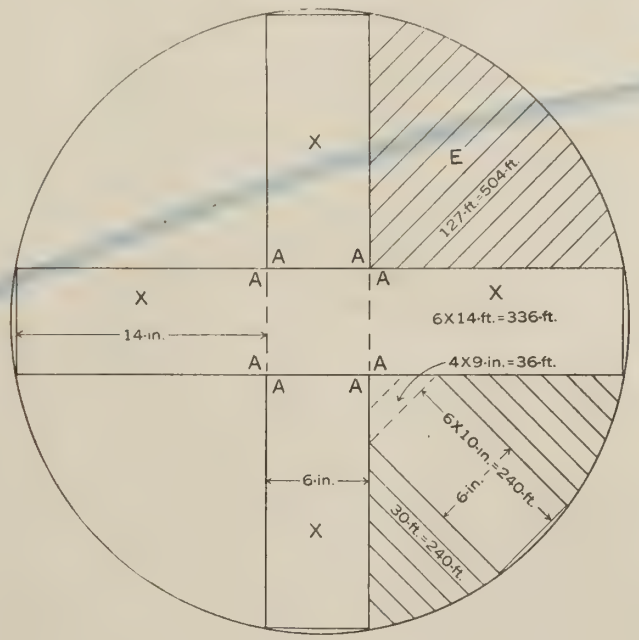


Fig. 2.

Of course, all handlers of oak know that the nearer to the medullary ray the stock be cut, be it lumber or veneer, the better is the figure. That is, there the flake is most prominent. Now, to accomplish this it is customary to saw the logs into as many sections as convenient, depending somewhat on the size of the log, of from four (from which perhaps quarter sawing derived its name) to eight or twelve, and in very large logs as many as sixteen sections. Now, flitches 6-in. in thickness are the maximum for good figure in a 36-in. log. The upper corners, A A, Fig. 2, will show but little figure, but in logs with a strong medullary ray a thin pencil stripe will be seen. This is one reason why veneer men prefer the flitches as in D, Fig. 1. It gives all possible width, with the best figure.

But let us first consider quarter sawing of lumber. In Fig. 1, A and B yield the greatest amount of lumber, or the exact amount of the log scale—768 feet. Section A is a full quarter and is cut up with only one turn, that to the knees. Strips 1 and 2 are only bastard cuts

and are marketable as flooring strips; all other boards are of sufficient width to grade as firsts and seconds. Section B, one-eighth section, is in results much like A, and is usually used when half of the log is tilted back four or more times, and so saves considerable handling, requiring the turning of the last one-sixteenth section only, all the back-tilting being done by receding the knees only. The best results, however, are obtained, concerning figure, in section C. The loss in measurement is 6.25 per cent., and it depends upon the class of customers the mill man sells to, as to whether the loss be justified. The advantage is that every board shows figure, and the loss is caused by the edgings being of such slender taper.

The sawing for flitches presents much the same problems, with the one idea always predominating—figure and width. With the true white oak, which has perhaps the most apparent medullary ray, it is an easy task to obtain at least some figure, but many species of "near" white oak require careful handling, close up to the flake, to make a showing. For all such woods proceeding as shown by section D, Fig. 1, is best. In fact, many veneer men who have their own mills quarter all their stock that way; they lose nothing in measurement, as each sheet of veneer is measured, and thus they can leave the flitch as tapering as a defective heart allows.

The full measurement of such a flitch would be about 96 feet, and the eight flitches would just equal the log scale, 768 feet, with approximately 112 feet of strips and lumber addition. But according to the prevailing custom the tally for such a flitch would be 6 x 13 in. by 13 ft., equals 78 ft., or 624 ft. for the eight of them. Now, this difference in measurement has often been the cause of disagreement. A thorough understanding of the measurements of flitches should be had at the beginning, inasmuch as these flitches present the best figure and all the width it is possible to command; a price that will permit of the loss of measurement and time in handling should be agreed upon. Fig. 2 is a fast way of disposing of the log, and has advantages that appeal to many mill men. The heart, which, when sawn into strips, is usually of no other value than fuel, therefore in many cases is only an additional expense to dispose of, can here be boxed and used as tramway ties, stack foundations, etc. Then we have the four flitches, 6 in. by 14 ft. equals 336 ft., and four flitches, 6 in. by 11 ft. equals 264 ft., a total of 600 ft. in ditches and 240 ft. in strips and boards, a very creditable gain. The principal objection to this modus operandi is that the upper corners, A A, of the four large flitches show but little, if any, figure, and so reflect badly on the entire sheet of veneer.

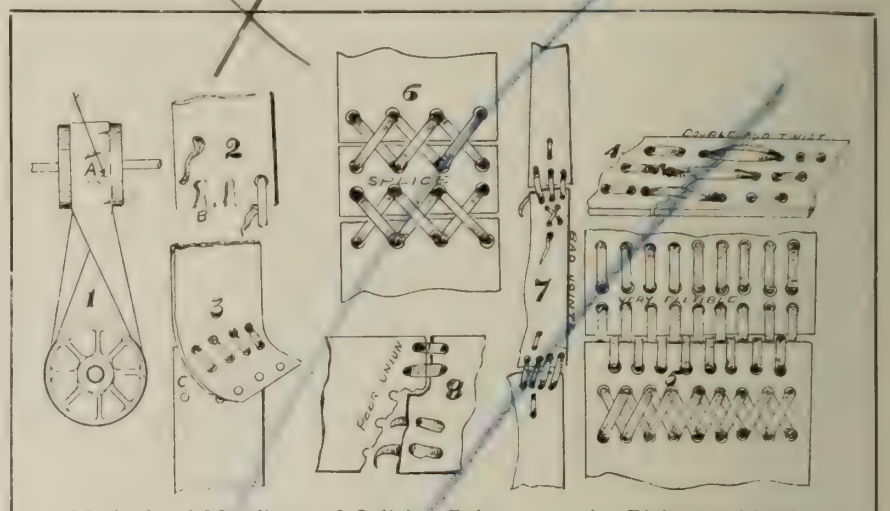
From these figures and the sketches we see that in neither case have we reached the full log scale in flitches, although we have that amount (768 ft.) in lumber in A and B, Fig. 1, and in Fig. 2, with combination X (336 ft.) and E (504 ft.), we have 804 ft. board measure. This would seem to show that the loss over the log scale need not be feared, nor keep one from quarter sawing suitable logs. Care and judgment must, however, be exercised, especially in the loading of the log, considering all the defects and shortcomings as well as the advantages of the logs. Knots and other defects should be left on corners where they do least harm. Splits are to be turned to the saw line, unless more serious defects prevent. But if the heart be to one side, then take advantage to get that extra wide stock. In a crooked log save at least the two parallel sides in full width, and let the pencil stripe come into all its prominence in a twisted log. Use the taper levers on the knees to full advantage in swell-butted logs, that you may follow the pith of the log, instead of the centre. And always keep as near the medullary ray as possible.—The Wood-Worker.

Sources of Vibration

When a machine, a group of machines, or an entire plant, shows annoying vibration, the cause therefor and the source thereof may be entirely different things. The source of most machine vibrations is lack of balance and uneven loads, which latter is merely lack of balance in another form. But the things that cause most of the vibration in machinery are belts. The belts may not always originate the vibrations, but they pass them along, add to them, and sometimes create them. To get an object lesson on this point, one has but to go into a shop or factory electrically driven, with individual motors throughout, then into a belt-driven plant of some magnitude, where there are lots of heavy belts. The belts are the medium of transmission and acceleration in the factory, like the strings on a violin are the medium of sound transmission and creation. Individual machines may show jerky vibrations when electrically driven, but the disturbance is localized, whereas if numbers of belts are coupled up into a great system the vibrations are distributed, joined into others, so that all machines are affected by both their own and the troubles of others. It is not the electricity that does away with this, but the separating and isolating of the sources of vibrations. Take a belt-driven drag saw, and the jerk of its uneven load can be felt through the entire factory. Cut it loose, make it direct-acting with a steam or air cylinder, and the disturbance ceases. Vibrations originating in the different machines are like small sticks, in that they are comparatively easy to break up singly, but hitch them all together with a system of belts and they are like a bundle of sticks firmly bound together—a pretty tough proposition to break up. And it may be fittingly added that if the belting is uneven in weight or lacking in balance in any way, it adds materially to the source of vibration itself.

Belts for Lumber Working Machinery

Belts employed in the operation of woodworking and finishing machinery are exposed to more severe atmospheric conditions than the common belt. Ordinarily the running belts are confined within apartments in mills or shops, where there is a fair protection for them; but in the lumber working interests one may find belting running in the open, conveying power from an engine which may be established in the woods to the lumber cutting machinery also not sheltered except, perhaps, for a crude roof thrown up over them. The belts of exterior lumber cutting service are subjected to the rains, the sun and the dust. These three factors combine to ruin a belt in a few months, unless precautions are taken to overcome some of the troubles. There is often considerable building of sheltered passages for belts in the fixed plant; but when the sawing plant is of the portable character there is not much time or material wasted in erecting covered ways for belts. The belts have to take the pelting of the rains and the baking of the sun. Therefore, belts of lumber working yards are likely to have numerous defects in them.



Methods of Mending and Splicing Belts — An Elaborate Mend

In Fig. 1 herein is shown the manner in which an exposed belt usually breaks up. The constant heating, drying, wetting and chafing of the uncovered leather results in hardening and cracking along the edge as at A. Of course, lubricants can be applied to soften the leather, and these will impregnate the fiber and help to some degree, but even the oils become noneffective as time passes and dust gathers in quantities on the surfaces. The dust hardens and is worn down to a smooth gloss on the wheels and the surfaces of the belting. When a belt gets to the stage shown in Fig. 1 it is time to substitute a new one. The chances are that the new one will go to pieces the same way, in time. In order to overcome this danger a covered passageway can be erected at small cost and in a short time to prevent the elements from ruining the belt.

It is becoming more and more common to use covered ways for running belts in lumber yards. In some cases the portable plants are provided with adjustable sheet metal runways through which the belt may be passed when the outfit is set up. The exposed belt decays rapidly at the joints, so that in time the holes may pull out as shown at B, Fig. 2. When the holes break out in this manner the end must be clipped off to present a fresh surface; then the holes pull out again and once more a piece is cut off, which takes some of the leather out each time and makes the belt shorter, and a piece must be spliced in. The exposed belt of the lumber yard is liable to break apart at the joints, as at C, Fig. 3, because of loosening of the cementing stuffs resulting from moisture on them. In order to prevent the joint from severing entirely a row of lacing is put in, as shown. Strenuous efforts are made to make the unions hold under adverse conditions. Figure 4 shows how one man introduced a triple system of lacing. He punched six rows of holes and laced the centre with the double twist type of lacing. This distribution of laces would make a firm grip under ordinary conditions; but when a belt is in a weakened condition through moisture and general exposure the rotting leather will pull out at the holes regardless of the system of distribution of the laces.

The system of lacing shown in Fig. 5 is somewhat elaborate. The workman had experienced trouble with the belt breaking at the

joint. He had adopted several methods for completing a joint, still the laces pulled out or the ends of the belt tore off. Then he devoted considerable time to the complicated belt sewing illustrated. He put in his series of holes, all close together, as will be observed. When he got to the middle lacings he arranged the laces to fit alternately above and below the joint, thereby making a most pliable union.

Figure 6 is given to show one way employed by the mechanics of a certain lumbering establishment of making a union with a splice piece inserted. It will be noticed that the crosses are confined to one side. Often in inserting a piece in a belt to make up for the bad ends that have been clipped off, the laces are made straight and crossed on the same side. This mixture of straight and crossed laces always develops trouble.

In Fig. 7 is shown the kind of belt that should be avoided, for the reason that it is patched and remade in places. In case a belt has to be used after it is patched a number of times pains should be taken to have the joints cut evenly and laced. If the splice is uniformly made it should not hinder the run of the belt; but if the splices are poorly made, as in this figure, the belt will give endless trouble. Belts in use on struggling machines like this are sure to militate against the performance of good work. Often belts on important machinery in lumber yards operate in as bad condition as shown in Fig. 8. In case a belt thus united has much work to do, the strain will quickly tear open the union; but if the work is light the patched joint may run on indefinitely, but giving poor service.—American Lumberman.

Sanitary Fundamentals

Since the most important factor in efficient service is the health of those employed, it is scientific management to control environment by constructive measures; more especially, to do everything possible for the promotion of the health, comfort and contentment of the force and to use means to ward off disease, writes Dr. Oscar Dowling in the American Lumberman.

In a camp the general features are sanitary conditions, including situation, water supply, sewerage and waste disposal; more particularly, with reference to the individual, food, medical care and sanitary discipline.

The camp should be placed on high ground near an adequate and healthful water supply. The situation of sanitary conveniences is important that odors may not be carried by prevailing winds toward the sleeping quarters. Kitchen refuse and all other objectionable waste should be burned or buried, and at some distance from the water supply. There should be provision for bathing. Even in the most primitive camps a tent, or hut, should be set aside as a bath room. This is practicable and necessary, even if the daily bath is only a rubbing with a wet towel.

Plain food, well cooked, is generally provided, but variety is lacking. It is a mistake to confine the diet almost entirely to meat and bread.

Perhaps the two most difficult features of management are medical preventative measures and sanitary police supervision. Recklessness and ignorance on the part of the majority make both obnoxious, yet both are necessary for the inauguration and maintenance of hygienic conditions. Stringent rules should be enforced relative to the use of sanitary conveniences for the protection of all, and as far as possible the men should be taught the dangers of excess in eating and drinking and the more imminent danger of all classes of communicable diseases. A man with tact and knowledge of these things should be known as a sanitary police officer and should be given a definite, if limited, authority over the men in these matters.

In reply to the question, "Is it healthful for men who work in the woods to drink icewater?" it is asserted by many medical authorities that the drinking of icewater is very injurious. A minority contends that in moderate quantities, particularly between meals, it is not harmful. Dr. Seneca Egbert, professor of hygiene and dean of the Medico-Chirurgical College of Philadelphia, says:

"The inadvisability of using icewater freely as a beverage should be mentioned as a habit most certain to cause much harm to the digestive apparatus and to give origin not only to intractable dispepsia, but to troubles more serious. If used at all, icewater should be taken slowly and in small quantities and as little as possible at meal times."

From more recent writers on diet and hygiene, we take the following: "Icewater will stimulate a more rapid and a greater secretion of gastric juice, but lessens motility of the stomach. Iced water in excess is injurious and should not be taken when one is overheated."

"To flood the empty stomach with icewater is not wise, for in real excess it may delay digestion a little."

On the other hand, from the time of Alexander the Great history is full of stories relating to the use of ice and snow. The prejudice against the use of ice seems to be the exclusive property of the minority, for now, as in the days of Nero, the majority adhere to the custom of the use of iced water and frozen delicacies.

Personally, I think the immoderate use of icewater at meals, and among working men excessive drinking of iced water, which begets a constant thirst, are injurious.

Ice made from impure water may contain bacteria, which will contaminate water otherwise pure.

Finishing of Stock for the Box Printer

It is now an era of more exactness in planing-mill work than we ever had before. There are various influences exerting themselves in this connection. One of these that perhaps may seem peculiar to some branches of the trade, but is familiar to the box factory, is that of the exacting requirements of planing work to put lumber in proper shape for the box-board printer.

Talk to a maker of printing presses for the box factory and the chances are he will say that their greatest difficulty is to get the planers and planer men to make stock of exactly uniform thickness.

Close Measurements in the Box Business

It is easy enough to get stock that is seemingly of uniform thickness, but when it comes to the exacting needs of a printing press, where just a little variation makes a big difference, it is found that exactness in thicknessing lumber for the printing press is a thing for microscopic measurement. In brief, it is getting it down finer than the average planer man is in the habit of doing.

There are two kinds of trouble. One is the variation in thickness of stock dressed during different days, and the other is the variation of thickness from one edge of the stock to the other. Just the least variation will show up where neat printing is being done. The harder the wood, the more aggravating is this variation in thickness.

In a talk on this subject with the superintendent of one of the biggest box factories in the country, he explained that he was looking for something new in box printers, something that would adjust itself to the variations in the thickness of their stock.

When this was taken up with the makers of box printers they said it was a sort of impractical proposition, because to provide a cushion or spring to the printers was to impair the clearness of the impression made. Furthermore, the printing press man argued that the box factory man should look closer after his planers, he should establish certain standards for thickness and insist that his stock be kept up to these standards.

The Sander for Finishing Box Stock

Now, while this much of the present story and argument is fairly well known to box manufacturers, even though it may be news to some people in other lines, there is something else; something that perhaps has not been thought of and experimented with enough by the box men themselves, and that is the idea of using the sander after the planer for finishing the box stock.

That the sander would improve it there is no question, but the average box manufacturer would perhaps at first figuratively throw up his hands at the idea of finishing his box lumber through a sander.

He doubtless thinks he is spending quite a lot on it to put it through a smoothing planer, and then if the boxes call for a little smoothing off with sandpaper it is generally done on a disk wheel or belt and is usually confined to sanding the corners and doing a little smoothing off after the box is nailed together.

Really the logical time to sand box material is before it goes to the printer, and if it is a lock-cornered box, preferably after the lock has been cut. There are several side issues and arguments that might be developed in this connection, but the one main point in mind right now is the one we will follow, and that is the advantage that sanding through a regulation drum should offer to the box man who is making a strong feature of elaborate and artistic printing.

It would not only minimize the trouble that has been complained of so long in the past about variation in thickness, but it would also give a better surface for printing. Those are the two important points that it is desired to bring out here, and to impress as strongly as possible in the hope that they may lead to the coupling of a sander on to the regular line of box machinery. The first one is that of getting the size more uniform, because the sander will take care of some of this slight variation complained of. The other important point is that a sanded surface is or should be a much better surface to print on than a surface fresh from a planer.

The surface coming from a planer is slick and glossy and will not take the ink of the printing press as readily as a surface that has been neatly sanded. At least, that is the opinion of the writer, and it looks like this and the other point of thicknessing should make a pretty strong argument in favor of using the sander more extensively in the box factory.—Wood-Craft.

Application of Electricity to Logging

Some Practical Observations Upon the Practical Side of the Question with Special Reference to the Expenditure Involved—Actual Comparative Costs

By Frank MacKean

In this brief article we propose to describe the method of the application of the mystic force of electricity to the homely task of logging.

We will assume that there is a small brook near your tract of timber, and that upon examination it is found to be four feet wide, one foot deep and flowing four feet per second of time. There is hardly a good sized body of timber on the coast that does not boast of one or more of such streams, quite often many times larger.

The topography of the country is such as to make it comparatively easy to find a place in the stream where the banks are high and the gorge or bed of the stream is narrow for locating your dam or diversion works. This point should be selected with a view of a good foundation for these works, shale, clay or rock being necessary to make the structure reliable.

Determine Head to be Utilized

The next step is to determine the head, or the height in feet, that can be utilized in the fall of the stream. As a hypothetical case we will assume that in its course of 1,000 feet down the valley the brook falls an even 100 feet, and that the diversion works has raised the water another 10 feet above the bed of the stream, hence, between the level of the pond and the site of the power plant we will have a difference of 110 feet. Water power is exactly proportioned to the amount of water in a stream, times its fall in feet, reduced to foot pounds and then to horse power.

Diversion Dam Cheaply Constructed

Assuming that the improvement is to be made solely for the purpose of logging off the land and in no sense to be permanent; the diversion dam can be constructed of logs, built of the gravity type planked on its upper slope with tongue and grooved 2-inch flooring and the intake pipe placed at least three feet below the proposed dam water level. A spillway over the crest of the dam or around it should be provided, ample to carry any flood waters that may come down the stream, and care should be used to see that the discharge in the stream is far enough below the dam to not undermine it.

The Pipe Line

The next step is the pipe line. As we have 16 second feet of water, and six feet per second is about the economical limit of velocity in a pipe line we will require an 18-inch diameter pipe to carry the water down the 1,000 feet of slope from the dam to the power house.

Care should be used to see that the hydraulic gradient is not departed from in laying the pipe line or you will have a severe loss of head in your plant.

Installing Water Wheel

The water wheel should be of the horizontal turbine type fitted with an automatic governor, and for the particular development here outlined should be a 12-inch wheel with steel case and steel draft tube, and set 8 or 10 feet above the tail race or ditch carrying the water away from the wheel.

The Power House

The next step is the power house, which can be built the same as the other camp buildings, of rough lumber. The only extra care needed is in preparing the foundation for the water wheel and electric generator, which should be firm and well set. Concrete could here be employed to good advantage even for a temporary plant, but logs cribbed and drift bolted will answer if properly placed. The generator should in this case be a 150 horse power direct current machine of the multipolar type, 600 volts, and direct connected to the water wheel. This is important, as a compact installation is necessary and one that is as near "fool proof" as possible and the entire plant should be as nearly self-regulating as it is possible to make it. The switchboard, a marble slab set on an iron frame at one side of the room housing the power plant, should carry one or more switches, an automatic circuit breaker and a volt meter and an ammeter with a pilot light, and a rheostat. The wiring can be either single or double circuit as the conditions may warrant. By grounding one side of the electric machine and one side of the motors, one wire is all that will be required for operating the system. The wires should be rubber covered and double braided to protect the insulation from abrasion and then a cheap wooden bracket and glass insulator can be tacked to the trees to get it to the point of usage.

Equipment of Logging Donkey

The next step in the equipment is the electric donkey. This is substantially the same in the arrangement of drums and drum control as the steam outfit, but the frame is made only long enough to carry the drums, and under the main shaft (which in the steam donkey is the engine shaft) the iron-clad electric motor is bolted in and a gear is keyed to it and meshes into the pinion on the motor shaft. Under the haulback drum is another small drum which is fitted with two friction contacts and carries coiled thereon a duplex braided specially insulated stranded electric cable which supplies the donkey with electricity. With this equipment the machine can be moved around in the woods by its own power exactly the same as the steam outfit.

Falling and Bucking Rig

The cut-off electric saw consists of a small one-half horse power motor geared to an 8-foot cross-cut or falling saw with a frame fitted with hinged tripods that are set up on the ground and fastened to the tree to be felled, in such a position as to allow the saw to work properly. The current is supplied to the motor by a feed wire of the same design as that on the donkey. One man only is required to operate this and in thick timber he could easily attend to three as well as one. This outfit will do the work of five men easily. The same saw can be used to "buck" the trees into logs, as the tripod is adjustable to make the saw operate either horizontal or vertical.

The foregoing makes up the ensemble of a complete electric logging outfit from the brook to the skid road or delivery point of the "yarder"; and in this article we propose to confine ourselves to this division of the logging problem only.

Comparative Costs

The next and most vital question to answer and digest is the cost of the electric system of logging, and we are going to not only give the figures for this but also those of the steam outfit of equal capacity, in proof of our statement as to the economy of the electric outfit.

Power Plant

Intake and dam	$ 50.00
Pipe line, 18-inch wood stave (continuous), laid	640.00
Water wheel, installed (200 h.p. capacity)	300.00
Power house, shed construction	150.00
Electric generator and station instruments (D.C.)	950.00
Wiring (say one-half mile)	400.00
Total cost, ready to operate	$2,490.00
Electric donkey, complete with 50 h.p. motor geared 8 to 1, with same drums and equal to a 9 x 10 inch steam outfit and guaranteed to do the same class of work	950.00
Electric falling and bucking saw, takes one man to run it; will do the work of five men	150.00
Complete equipment up to roader point in logging operation	$3,590.00
To this amount should be added for 65 h.p. "roader" donkey	1,150.00
Extra line construction for same	250.00
Making the total outlay for a complete electric outfit to deliver logs, say 3,000 feet	$4,990.00

To operate this outfit will require the following fixed costs, to get an output of 80,000 feet of logs per day:

Interest on investment, at 10 per cent., to cover contingent extras, $490 per year, or per day of 300 working days in year	$ 1.66
Depreciation, five per cent.	.84
1 Electrician at power house	4.00
2 Electricians at donkeys ($4.00 each)	8.00
2 Choker men ($3.00 each)	6.00
1 Sniper	3.00
1 Chaser	2.50
3 Rigging slingers ($3.50 each)	10.59
1 Signal man	3.00
1 Faller and bucker to operate electric saw	3.50
	$ 39.00
To this add another $2.00 for repairs especially chargeable to the electric equipment	2.00
And we have as the total daily cost of operating	$ 41.00

Or a cost of 51¼ cents per thousand from the tree to the water, on 3,000 foot delivery.

Against this electric showing we have the digest of logging costs by steam under average conditions as published in the October, 1910, "Timberman" by Mr. J. P. Van Orsdel, of Portland, logging engineer:

Cost of falling and bucking by hand, 1,000 feet to log, average	$0.55
Yarding same, 900 ft. haul 1,000 to log, average	.65
Roading same, 3,000 ft. average haul	.30
Total cost per M.	$1.50

He gives the capacity of the machines at from 50 M. to 75 M. per day of ten hours.

He also gives the crews for this daily output as follows:

Two sets fallers, three buckers.

For the yard engine crew he gives one driver, one fireman, bucker, one chaser, one hook tender, two rigging slingers, one swamper and sniper, and he figures their time at $26 per day.

His roader crew is given as one engineer, one fireman, one wood bucker, one chaser, one grab man, at a cost of $32.50 for labor and upkeep, etc.; so we will have to assume that the same schedule of wages has been used as for the yarder crew. This would make the labor account as follows:

Engineer, $4.00; fireman, $3.50; bucker, $3.00; chaser, $2.50; grab man, $3.00, making a total of $16 per day, which certainly shows a very large allowance.

In his analysis of the upkeep of the yarder he also allowed $10.00 per day. There is a wide diversion of opinion as to these costs and we feel inclined to split them in half to arrive at the comparative figures.

4 Fallers, at $3.00 each	$12.00
3 Buckers, at $3.00 each	9.00
Yarder crew	26.00
Roader crew	16.00
Yarder upkeep (½ estimate)	5.00
Roader upkeep (½ estimate)	8.25
At a total daily cost of	$76.25
As against the electric cost of	41.00
Leaving a net daily saving of	$35.25

Horizontal Resawing

Horizontal resawing has gradually become of some importance as a factor in box manufacturing especially. It enters more or less into some other lines of milling, but its main hold is in the manufacture of boxes and box material and in this branch of the trade it has made much more progress than the little writing that has been done upon the subject would imply, says the St. Louis Lumberman. In fact, there has been but little said about it, about the relative merits of horizontal resawing as compared to the regulation upright except by box makers and salesmen who seek to fit them into special lines of work here and there. The students of technical woodworking have had very little to say about the relative merits of the two styles or the particular points that make one class of resawing advisable as against the other.

The first point that probably led to the adoption of the horizontal resaw in this country is the advantage of it in handling short length stock. The horizontal resaw equipped with a hopper feed becomes almost an essential machine where it is desired either to handle the short length lumber or to refine and cut up lumber into box lengths before resawing. Probably the original idea was to facilitate the using up of short length stock from the mills, that would otherwise go to waste, but there is developing a new idea in connection with lumber working, that is, not new in its conception, but new in its prominence, that overshadows the first consideration of the unavoidable short lengths.

This new plan or modern idea is based on refining lumber and eliminating as many of the defects as practical before working. And it is of more importance now than formerly, because of the great quantity of low grade stock that must be used. In the cutting up of low grade stock that must be used. In the cutting up of cull lumber or low grade boards if the cutting can be done before resawing it makes easily practical the eliminating of a lot of knots and defects and by so doing it not only reduces the volume of useless work that must be done at the resaw, but also it relieves the saws from the cutting of hard knots that is a big item itself. Indeed, there are many who claim that the working of knots on resaws, or planers either for that matter, does more to wear out and dull the cutting tools than all the good lumber between the knots. Consequently, the eliminating of knots in low grade lumber before working is quite an important item. It probably forms one of the most important considerations in connection with the horizontal resaw and is no doubt responsible for no small part of its growing prominence in the box making trade and in other lines of milling where short stock is to be resawed.

Another important consideration in connection with the horizontal resaw is the advantage offered in working up mill slabs of the kind that could not very well be fed into the regulation resaw. At least this is true of some of the horizontal resaws offered. Some of them are built with the special object in view of taking slabs and reducing them to short lumber stock. In other words, to box shook material. It enables the sawmill man to utilize more of the slab stock and incidentally it increases the quantity of short length material that the mill will furnish.

In some instances where the mill goes into the shook business this short length material is worked up right at the mill in the form of shooks, and this is probably an excellent way in which to make use of the horizontal resaw, to make shooks as a sideline to sawmilling. But, even if the mill does not enter the shook business itself it might work a lot of short length lumber out of slabs and other stock about the place, either cut to thin box sizes or into regular lumber thicknesses to be resawed afterward by another horizontal saw at the box factory end. Or, for that matter, to manufacture any kind of short length stock, the thickness and dimension being governed by the purpose for which it is marketed.

Aside from these features it is probably an open and debatable question as to whether there are any advantages in the horizontal resaw. A band saw is a band saw and may be made to do its work equally well no matter just what position it runs in. The matter of position or attitude of the saw in relation to the perpendicular and horizontal is more a matter of the facilities and convenience it offers in connection with working out the other details of the sawing machine and feeding mechanism. The saw itself should work equally well in either an upright or horizontal position or at an angle for that matter. So, it reduces itself to a matter of the opportunities it may furnish in a certain position for a more advantageous equipment of feeding devices, etc. The horizontal resaw furnishing a flat bed to feed on naturally offers better facilities for equipping the hopper or automatic feed to handle short length stock.

These same things may be both possible and practical in connection with the perpendicular resaw, but not a great deal of attention seems to have been given to their development, at least not before the coming of the horizontal resaw to demonstrate the advantages in certain instances of having something different from the regulation feed rolls of the general type of band resaw.

The horizontal band saw is well known in Europe not only for resawing, but it has for years been conspicuous in mill sawing. Just why the Europeans prefer the horizontal type of mill sawing is a matter that has been the subject of some discussion without really developing any very strong points of advantage. Points that will in any way equal the advantages offered in the American type of mill saw. The horizontal idea never gained any prominent recognition in lumper operations in this country, and the horizontal resaw idea is a product of the present decade and seems to have developed primarily for the sake of handling stock cut up into box lengths before it is resawed through the means of an automatic hopper feed. As the tendency to do more refining on lumber before it is worked and eliminate more of the defective material and especially the knots before putting it through the machine gains in value and prominence so will the demand for horizontal resaws spread, even perhaps down into the woods among the mills quite extensively where there are opportunities to work slabs and scraps into box shook material. Just how far it may enter other branches of the lumbering and wood-working industry is a matter of conjecture, but so far there does not seem to be any strong tendencies except where it is desired to embody the hopper feed and work short stock.

A cigar salesman, who was called upon for a speech at a banquet attended largely by politicians, made a hit with the following remarks:

Men are like cigars. Often you cannot tell by the wrapper what the filler is. Sometimes a good old stogie is more popular than an imported celebrity. Some men are all right in the show case, on display, but are great disappointments when you get them home. No matter how fine a man is, eventually he meets his match. A two-fer ofter puts on as many airs as a 50-center. Some men never go to the front at all except during campaigns. Some are very fancy outside and are selected for presents. Others have a rough exterior, but spread cheer and comfort about them. Men, as all cigars, good or bad, two-fer, stogies, rich or poor, come to ashes at last.

It is claimed by some that it does a band saw more harm to run idle than to be cutting. Whether or not this is true, it is at least a waste of power. When there is no work for the shop band saw it should be shut off.

Skidders and Skidding Accessories

In any system of logging unexpected and excessive strains are encountered as well as severe regular work. It is necessary, therefore, not only that engines should have heavy gears, drums and bedplates, but that the entire equipment of blocks, fittings, ropes and incidentals should be of proper design, size and material.

It is clear that in any system of skidding where logs are hauled over the ground great resistance is offered to their passage by the ground itself. This resistance will be greatly increased by the underbrush, roots, stumps and other debris.

The regular slack rope or rehaul system, with one powerful pulling drum and one high speed outhaul drum, dispenses with the messenger rope and uses only two ropes, one being the pulling rope and the other the outhaul return, or trip-line for returning the pulling rope into the woods. This return rope is, of course, twice the length of the pulling line.

Various devices are used in slack rope logging to reduce the resistance offered by the obstructions in the woods, among which are special grab chains, the "Baptist" cone, the shoe and log cappers.

The "Baptist" cone is a steel cone through the nose of which the grab chain passes freely. When a log is tongued or grabbed and the pulling line tightened, the log is thrown forward into the cone and in a further passage the cone steers the rope off any obstruction.

The "Butler" shoe is similar in principle to the "Baptist" cone, being a scoop shaped steel shoe upon which the length of the log slips and rides over obstructions.

A homemade device for serving about the same purpose as the "Baptist" cone and the "Butler" shoe is the "Lizzard." This, as all loggers operating in the South, especially in the wet sections, know, is the crutch of a limb on which the front end of the log rests when being skidded.

The distance possible to reach with a skidder will depend of course on the ground conditions, the nature of the logs to be hauled, the size and construction of the engines and the general equipment for overcoming the obstructions offered by the natural conditions. In swamp logging this distance may be as great as 7,000 feet.

In swamp slack rope work the logs may either be dragged together in train, as is usually done on the Coast, or can be pulled in by sidelines. These sidelines vary in length, being hooked on the end of the pulling line at one end and at the other end to the logs to be pulled. By the use of sidelines logs at considerable distance both sides of a run can be brought in or "sidelined."

In slack rope logging in swamps, as well as with this system under some other conditions, it is cheaper to handle timber in long log lengths or in full trees.

The possible length of haul may be increased by a battery of engines or a second engine, a "yarder" in portable form to move readily about the woods; this yarder being used to sideline the logs to the main engine line.

Experience has led to the conclusion that the slack rope system of skidding should be used under the following conditions: When long hauls are absolutely necessary; that is, when the timber extends over 1,200 feet from the nearest reaching point of the road, railroad, stream or mill; on short hauls where the logs are extremely large and the timber cuts less than 8,000 feet to the acre, or where the timber is smaller and cuts less than 6,000 feet to the acre.

In swamp logging where there is no waterway for the use of the pullboat and where the surface conditions make the use of animals impracticable, the cableway skidder is used to advantage. In fact this form of skidder has many advantages that recommend its use under other conditions than those that prevail in swamp logging. The resistance offered to the hauling of a heavy log across the ground always is considerable and inasmuch as the cableway skidder is a device by which logs can be raised in whole or in part from the ground and carried on a wire cable, the power actually consumed in moving the log to the road is much less than when it is dragged on the ground. In the use of the cableway skidder, therefore, when the run has been once cleared little attention need be paid to the surface of the ground.

Most loggers are familiar with the cableway skidder, though opinions differ considerably as to some of the details of operation. The machine is placed beside the railroad track, at the head spar, a stout, sound tree, the limbs of which have been removed to prevent injury to workmen. It has been found practically possible to log satisfactorily all the timber in every direction from this head spar, a distance of from 700 to 1,200 feet, clearing at each setting from 30 to 50 acres, according to the length of cables used.

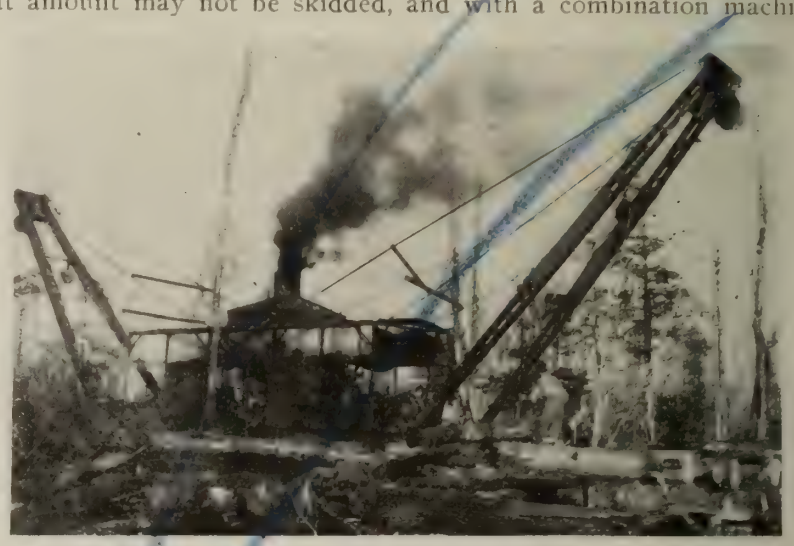
The process of gathering the logs gradually rotates around the head spar, a new tail tree being selected every 200 or 300 feet, the distance depending upon the rigging crew. If this crew is experienced and has no difficulty in keeping ahead of logging operations, the shorter the distance between the tail trees, the more economical are the operations. Of course the logging crew is always at work preparing the next tail tree while logging is going on.

When all the timber adjacent to one main cable is skidded that cable is dropped by disconnecting from the main cable extension; and the other main cable, which has already been placed in position by the riggers, is connected to the main cable extension and tightened requiring from ten to thirty minutes.

The next tail tree is then selected and a light rope provided especially for the purpose is thrown out on the new run from the head spar up to and around the newly selected tail tree, and thence to the tail tree that has just been deserted. This light rope is then made fast to the main cable that has just been dropped and by means of a winch-head or drum on the engine is drawn in, thus dragging the main cable entirely around the newly selected tail tree. It then lies upon the ground between the head spar and the tail tree on the new run ready to be connected.—American Lumberman.

Economy in Skidding Logs

The economy of the independent skidder and loader as compared with combining the two operations in one machine is dealt with in an article contributed by the Clyde Iron Works, of Duluth, Minn., manufacturers of the four line steam skidder which is being used extensively at the present time. The purpose of the article is to prove that an independent skidder and loader used separately is the only proper manner in which to keep a lumber mill supplied and to get logs out of the woods economically. The combined skidder and loader, except in very small operations, is said to increase the cost of delivering logs to the mill by nearly 50 per cent., and again is dependent upon the character of the timber. If there is a heavy stand it will skid 150,000 a day or more. If the timber is scattered a distance from the hauls, or if the country is rough, one-quarter of that amount may not be skidded, and with a combination machine,



The Clyde Steam Skidder

whatever the capacity of the loader, a man cannot load more than he can skid, and besides an accident to either operation would throw the entire machine out of commission.

The Clyde Universal is said to be the only combination machine that will do this work both well and economically. This machine needs no spur track, neither is it jacked up on spuds to let empties pass, so that it will be readily seen that a move can be made at any time with a minimum of expense and delay. This feature also makes it practicable to move the machine frequently to skid the logs direct to the track at the nearest point. It is claimed for this machine that it will keep the mill owners, railroad, mill and men busy all the time, and deliver the desired number of logs into the mill day after day indefinitely. With many mill men the question of skidding and loading is a vital one and incidentally one that needs considerable attention. The Clyde Company have taken this matter up extensively and are conversant with all questions pertaining to the great question of economy as applied to the lumber mill.

The Late Walter Knight

News of the death of Mr. Walter Knight of Burks Falls, Ont., which occurred last month, came as a shock to the lumber trade. From a small beginning in a sash and door factory in 1885 the late Mr. Knight had developed in the Knight Brothers Construction Company a business whose trade extends from the Atlantic to the Pacific. Born in the world's metropolis in 1860 the late Walter Knight came to Canada with his brother at an early age and first engaged in bush farming. Later they commenced the manufacture of sash, doors, etc., and in so doing laid the foundation of the present successful concern. His brother, Henry Knight, is President of the Knight Brothers Company, Limited.

Millmen Advance Prices on Hemlock

Inspection Rules will be Enforced, and Wholesalers will be Asked to Co-operate

The advisability of advancing hemlock prices, and the enforcement of the inspection rules were the chief topics discussed by the hemlock manufacturers at a meeting held at the Queens Hotel on July 10th last. A large number of the representative manufacturers of Ontario were present. The meeting lasted considerably over three hours and many important matters were discussed. In regard to the advancing of hemlock prices the manufacturers felt, after fairly discussing the question, that trade conditions warranted an increase in certain lines. Several prices of different stocks were said to be low in comparison with others, and as the cut has been forty per cent. less this year, and the cost of production considerably above the average, it was felt that a small advance was justified. The recent hemlock rules compiled by the association, were also discussed to a considerable extent. Some of the members present stated that little or no attention had been paid to the rules by a number of the manufacturers and that in consequence the grades from the different mills were not uniform, and that several millmen were practically making their own grades, which was detrimental to the other manufacturers. The present rules are satisfactory to the majority of the manufacturers, and they will do all in their power to have them lived up to. In the United States they have a standard rule of inspection which is carefully guarded by every manufacturer and wholesaler. In Canada there is no standard system of grading and the hemlock manufacturers feel that it is time something was done along this line.

The rules will be printed on a large card and will be mailed to the different manufacturers and wholesalers throughout Ontario. The following list of prices of No. 1 and No. 2 hemlock was adopted by the members present. These prices will take effect at once.

2 x 4 12-10 16	$17.50
2 x 6-10-12 and 14	16.50
2 x 6 x 16	17.50
2 x 4/12-18	19.00
2 x 4 12-20	21.00
1 x 4/4-8-16	13.50
1 x 6 x 8-16	16.50
1 x 8 x 8-16	17.50
1 x 10/12-8 1/16	18.50
No. 2 1 x 4/12-6 1/16	11.50
No. 2 2 x 4 6-16	13.00
No. 2 2 x 6/12-6/16	12.50

These prices are based on 8½ per cent. freight rate to Toronto.

The next meeting of the association will be held in about a month's time, and all Canadian wholesalers will be invited to attend.

A New Fast Feed Molder

The illustration shown herewith is of the No. 305 Fast Feed Inside Molder, manufactured by Messrs. J. A. Fay & Egan Company. It is a finely built machine, strong and powerful in all its parts, with the newest and latest advantages for rapid adjustment. All gearing is completely covered, and the side heads are hooded. The feed works consist of four rolls, 7 inches in diameter, all driven by heavy gears. It is made in two widths, 12 in. and 15 in., and works material up to 6 in. thick. It is, we might say, a "perfect molder," It is equipped with profile jointing attachment, and positively will not tear out on knotty or cross-grained stock; built with lots of reserve power, and will take care of the heaviest classes of work. The 305 will reduce the manufacturing costs and raise the grades of formed stock.

The manufacturers will be glad to send a large photo, and a detailed description of the 305 to interested parties. Their address is 465-485 West Front Street, Cincinnati, Ohio.

Doing Work Too Well

Can a man do his work so well that it will impair his usefulness to his employer and impede his own progress? asks a writer in the Wood-worker. That probably depends on the interpretation we put on the term. A man can take more pains with, and spend more time on a piece of work than that particular work will justify, but to do work well in a broad sense is to take into consideration the requirements as well as the quality of workmanship.

Not long ago a prominent manufacturer told a story as an incident to another matter under discussion, that goes straight to the meat of this subject, though he was perhaps not thinking seriously of that side of it at the time. He said that some years ago a man came to him for a job as superintendent of his box factory. The man, in urging his claims to competency, told of a factory he had had charge of, and said that the concern had never had any complaints from its customers. "Oh," said the boxmaker, "that indicates very clearly why you are out of a job."

In other words, his point was that this man had done his work too well to make a profit for his employer; that it takes occasional complaints to prove that you are not giving your customers more than they are entitled to. Perhaps the man would not have been given a job anyway, because they were not in need of a superintendent, but on its face here is a case where a man impeded his own progress by doing his work too well.

There is, of course, room for lots of questions and arguments. There is the question of whether or not the manufacturer was right in his logic about it being necessary for a concern to have complaints. The writer knows of one concern that takes pride in the fact that during fifteen years of business it never had a complaint on quality from customers, but this was a business in which quality was an important factor.

There is a question of whether or not making the best of boxes constitutes doing the best work. Some boxes are for cheap, rough service, and it would be a waste of time and material to make them very high in quality. And then there is the question if the manufacturer in this instance didn't merely use an unkind, unfair and ungentlemanly excuse for refusing to give an applicant a job!

The Newport Timber Company of Newport, B.C., will shortly erect an extension to their mill in that town. The company expects to double their capacity.

305 Fast Feed Molder, manufactured by the Fay & Egan Company

WANTED & FOR SALE DEPARTMENT

PUBLISHERS' NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

WANTED—LUMBER, ETC.

WANTED—A quantity of 4/4-in. Ontario Plain Red Oak, vicinity of Georgian Bay preferred. Apply Box 535, Canada Lumberman, Toronto, Ont. 14-17

White and Red Pine Wanted

3 in. x 6-in-7-in. 18 ft. Tank Stock, also Quarter Cut White Pine Pump Squares.

Ontario Wind Engine & Pump Co., Ltd.
Toronto, Ont. t.t.

Basswood Lumber

We will purchase Basswood Lumber, 1-in. and 1¼-in. thick, white stock by car or entire stock. White us what you have and what you want for it.

Box 498, Canada Lumberman, Toronto, Ont. 11-15

Basswood Lumber Wanted

We will purchase Basswood Lumber, 1 in., 1¼ in., 1½ in., 2 in. thick. Write us what you have and what you want for it.

CANADA LUMBER SALES CO.,
N. B. 416,
Dominion Express Bldg., Montreal.

Trimmer Ends Wanted

Price and freight rate permitting we will contract to take your White Pine Trimmer Ends, rotten pieces thrown out, fresh stock and not colored. Write price per cord on car and state shipping point.

The Wm. Cane & Sons Company, Ltd.,
11-17 Newmarket, Ont.

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4½ in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

FOR SALE—LUMBER, ETC.

For Sale

To the manufacturers: Birch, Maple, Basswood and Elm in all thicknesses. Send us your enquiry. The Meaford Lumber Company, Meaford, Ont. 7-20

For Sale

100 M. ft. 2-in. Cull Spruce. 300 M. ft. 1-in. Cull Spruce. 15 M. ft. 1¼-in. M. C. White Pine. 50 M. ft. 2-in. M. C. White Pine. Fred T. Smith, 310 Board of Trade Bldg., Montreal, Que. 1.t.f.

For Sale

500,000 feet Band Sawn Birch 4/4, 5/4 and 8/4 in shipping condition, rail or water shipment The Rathbun Company, Deseronto, Ont. 14-1

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

Lumber For Sale

4 cars 1-in. good cedar for boat building.
100,000 ft. 2 x 6 mill run hemlock.
100,000 ft. 2 x 8 mill run hemlock.
4 cars 2-in. white oak, sound and square edge. Apply to Geo. C. Goodfellow.
Montreal, Que.

Shingles For Sale

for immediate shipment. Standard grades.
7 cars Specials.
5 cars Extra No. 1 with clear whites in.
5 cars Clear Whites.
Which we bought before the raise and can sell under the market, write or wire for prices for immediate shipment. 14-15

KEDDY & KENNY,
Hemmingford, Que.

For Sale

For quick shipment, 800,000 ft. Birch. All grades and thicknesses.
200,000 ft. Soft Elm M. R. All thicknesses.
100,000 ft. Basswood M. R. inch.
100,000 ft. Maple. All grades and thicknesses.
Send us enquiries. The Meaford Lumber Company. 7-20

WANTED—MACHINERY, ETC.

WANTED—Good second hand Wickes gang, 18-in. cut; must be of modern construction and in good operating condition. Advise with full particulars. Graves, Bigwood & Co., Buffalo, N.Y. 13 T.F.

Wanted Sawmill

Portable Sawmill with capacity of about eight thousand feet. Must be in first-class condition. Write all particulars to C. A. Spencer, Eastern Townships Bank Building, Montreal, Que. 14

FOR SALE—MACHINERY, ETC.

For Sale

Planing mill, sash and door factory. Well equipped. Doing good business in a city of twenty thousand. Good reason for selling. Address Box 524, Canada Lumberman, Toronto, Ont. 14

Belting For Sale

1,000,000 ft., all makes and sizes. Pulleys, Shafting, Saws, Iron Pipe, Roofing, Steel Cables, 200 tons Relaying rails, etc. Write us for prices, stating requirements.

Imperial Waste Metal Company,
11-14 150 Queen Street, Montreal.

Machinery For Sale

A Waterous No. 4 Band Saw Mill, with Carriage Saws, Live Rolls, and complete Filing Room equipment, also several Good Woodworking Machines, in splendid condition.

J. S. FINDLAY,
2-TF Owen Sound, Ont.

Thresher For Sale

For sale or exchange on standing timber, Waterloo Champion thresher with or without straw cutting attachment, wind stacker, feeder, chaff blower. Thoroughly re-built; guaranteed. Address Angus Bowman, New Dundee, Ont. 14

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 70 H. P. boiler, 60 H.P. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water.

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

For Sale

Two Steam Logging Engines by Alex. Dunbar & Sons. John Breakey Registered, Breakeyville, P.Q. 14-15

Saw Mill For Sale

On Georgian Bay, adjacent to North Shore, good two-storey circular mill in good running condition, double edger, trimmers, capacity about 12,000 feet per day; plenty timber available and ready sale for slabs; splendid opportunity for small millman; will be sold cheap as owners have other interests requiring their attention. Box 444, Canada Lumberman, Toronto, Ont. 5-TF

Logging Equipment For Sale

100 Russell logging cars, complete with all chains, brakes, etc., in strictly first class condition at exceptionally low price. Full outfit of logging equipment, horses, harness, sleighs, chains, tools, blankets and camp outfit, all at a small fraction of its value. Write for prices and full description to Yawkey-Bissell Lumber Co., Arbor Vitae, Wis. 14-17

Machinery For Sale

One 10-in. moulder on base Hespeler Machinery Co.; one 26-in. divided roll Ballantine Planer; one power feed rip saw Ballantine; one 16-in. buzz planer with Jones guard; one 30-in. bracket band saw; one shaper; one roll top cut-off saw; one wood frame cut-off saw and groover with two patented groover heads; one wood frame rip saw with boring attachment; one mortiser; one tennoner; one sash and door sticker with five heads; one door clamp; one 16-in. swing lathe; one sand drum; one 30-in. x 30-in. x 36-in. safe; one 35 h.p. engine and boiler; one emery with three wheels; one swing saw; a large quantity of sprocket wheels and chains; one automatic saw gummer; twelve roller bearing factory trucks; one rope feed saw mill; large number of wood split pulleys; quantity of used belting; quantity of shafting hangers, boxings, etc. Will sell any of the above cheap for quick sale.

Write to Box 576, Canada Lumberman, Toronto, Ont. 12-tf

Machinery For Sale

Carver, four spindle, Rohlman.
Cut-off saw, railway.
Dovetailer, Boults.
Engines and boilers.
Jointer, chair seat, Jenkins.
Jointer, 16-in. Clement.
Moulder, two side, 6-in. Smith.
Moulder, three side, 6-in. Smith.
Moulder, four side, 6-in. Houston.
Moulder, four side, 9-in. Fay.
Moulder, inside, four side, 12-in. Woods.
Mortiser, Smith.
Mortiser, Bit.
Planer, 20-in. Gem.
Planer, 24-in. Cincinnati.
Planer and Matcher, 9 by 6-in. Berlin.
Resaw, band, American, 48-in. wheel.
Resaw, circular, 42-in.
Resaw, Goodell & Waters, 36-in.
Ripsaw, circular, self feed, Williamsport.
Sander, 24-in. Perry, power, two drum.
Saw Gummer, Rogers.
Saw-mill, band, 63-in. wheel, carriage 18 ft.
Shaper, home made, wood frame, 2 spindle.
Shaper, iron frame, wood table, 2 spindle, light.
Shaper, iron frame, wood table, 2 spindle, heavy.
Swing saws.

O. L. PACKARD MACHINERY CO.
c Milwaukee, Wis.

WANTED—EMPLOYMENT

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

WANTED—Position as Bookkeeper and office manager with wholesale lumber firm. Ten years' experience; competent to handle all of a lumber office work. Best of references furnished. Apply Box 521, Canada Lumberman and Woodworker, Toronto, Ont. 13-16

WANTED—EMPLOYEES

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—Lumber Salesman, by American Hardwood Firm. State experience, and salary expected. Man with white pine experience preferred. Address Box 536 Canada Lumberman, Toronto, Ont. 14

WANTED—Yard foreman for retail lumber yard furnishing contractors, in South Western Ontario. Must be active man, not afraid of work. Wages to start $2.50 per day, with a possible raise to $18 per week. State age and experience. Box 520, Canada Lumberman, Toronto, Ont. 13

Wanted

Thoroughly competent saw filer for mahogany and hardwood mill, experienced man for slicing and rotary veneer machines.

Circular sawer for edger.

Apply 119 Board of Trade Bldg., Montreal, Que.

Reporter

We want an energetic representative in each town in Canada to report on building and engineering work—to tell us where machinery, equipment, supplies or materials may be sold. Reports are paid for on the per item basis. It depends upon your own efforts how much you make. This is a profitable side line and there is good money in it for a hustler. Write to MacLean Daily Reports Limited, 220 King Street West, Toronto.

BUSINESS OPPORTUNITIES

For Sale

Planing mill, well equipped with modern machinery, doing good business. Ill health only reason for selling. Reply J. S. Richardson, Tillbury, Ont. 12-15

Timber Limit For Sale

1,200 acres Hardwood, Hemlock and Cedar. Some Pine; 9 million feet for $5,000 cash. Five miles from railroad; two from river. Box 431, Canada Lumberman, Toronto, Ont. 6-t.f.

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest, if your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf.

Tenders for Pulpwood Limit

Tenders will be received by the undersigned up to and including the 15th day of August next, for the right to cut pulpwood on a certain area, situated on the Abitibi Lakes and River, tributary to the Grand Trunk Pacific Railway, and the Temiskaming and Northern Ontario Railway, in the District of Temiskaming.

Tenderers shall state the amount they are prepared to pay as a bonus in addition to dues of 40 cents per cord for spruce, and 20 cents per cord for other pulpwoods, or such other rates as may be from time to time be fixed by the Lieutenant-Governor in Council, for the right to operate a pulp mill and a paper mill on or near the area referred to.

Such tenderers shall be required to erect a mill or mills on or near the territory and to manufacture the wood into pulp and paper in the Province of Ontario—the paper mill to be erected when directed by the Minister of Lands, Forests and Mines.

Parties making tender will be required to deposit with their tender a marked cheque payable to the Honorable the Treasurer of the Province of Ontario for ten per cent. of the amount of their tender, to be forfeited in the event of their not entering into agreement to carry out conditions, etc.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

W. H. HEARST,
Minister of Lands, Forests and Mines.
Toronto, Ont., May 15th, 1912. 11-15

For Sale

The best equipped planing mill in Northern Ontario in fast growing town. Also lumber yard in connection. Splendid opportunity for live man with some capital. Owner retiring from business. Apply Box 522, Canada Lumberman, Toronto, Ont.

For Sale

Established Lumber Business, with first-class mill, now running full time. Timber limits with 20 to 30 million feet of standing pine timber conveniently located, and all merchandise, etc. Price $55,000. This is worthy of investigation. Address Box 332, Canada Lumberman, Toronto, Ont. 19-22-t.f.

Timber Limits For Sale

Two sections, 1,280 acres timber, about fifty miles from Nelson, B. C., one mile from railway; about 12,000,000 feet saw timber, 5,000 to 6,000 poles, and considerable tie timber. Road from railway to limits. Must be sold immediately. Offered at great sacrifice. Apply J. R. McDougall, Trail, B. C. 13

Woods for Pattern Making

Some interesting data concerning the relative merits of the different woods employed for pattern making purposes has resulted from investigations at several large American pattern shops. These go to show that the woods chiefly used are white pine, cherry, and mahogany. White pine has always been used primarily in the manufacture of patterns, and still furnishes the principal supply of material for this purpose. Owing to the high price of No. 1 shop and better white pine, which are the grades employed for pattern-making, California sugar pine is substituted to a considerable extent in many shops where large castings are made. Sugar pine is regarded as the best substitute there is for white pine, but it is not as satisfactory for the reason that the tiny "sugar streaks" in this wood are prone to ooze resin even through the varnish finish, which often results in a rough casting. While both white pine and sugar pine are inferior to cherry and mahogany, their lower price makes them more generally employed for pattern making purposes. It has been estimated that patterns made in cherry and mahogany can be used several thousand times, whereas a soft-wood pattern would endure only about one-quarter as long a period. Constant use will gradually wear off the sharp edges that are all-important in the forming of an accurate mould. When this occurs the usual remedy is to chamfer down the blunted corners and set in duplicates of cherry or mahogany. In core boxes, it is a common practice to glue a hardwood veneer over the pine. Only small or delicate patterns that are liable to be subjected to unusual wear are always made of hardwoods. The larger patterns, such as gear wheels, have their teeth made of hardwood, and the frame work of pine. Generally speaking any wood that tends to either shrink or swell is poor material for pattern making. Experience has shown that pine will shrink considerably in width, and will also expand materially when placed in contact with the moist core sand. Considerable quantities of the three woods mentioned are utilized each year by big pattern concerns. As an instance of the extent of consumption one factory alone consumes each year 175,000 ft. of pine and 1,500 feet respectively of mahogany and cherry.

The Tool Room in Sawmills

In these days all up-to-date mills recognize the value of a fully equipped tool room placed in the hands of a really competent man, who is made answerable for the proper equipment and perfect working condition of all cutting tools; and there is no doubt when this plan is properly carried out the result is a larger output of better quality, with a considerable saving in power and time. It cannot be too frequently urged that the tool room is really the most important department in a mill, and any reasonable outlay in this connection is soon amply repaid. In addition to a full equipment of tools for repairs, it will be found to effect a considerable saving in time and pay well in the end to provide each machine with a duplicate set of saws, cutters or chisels, as the case may be. In this case each machine should be numbered and have a peg rack or small cupboard to itself in the tool room, and as the saw becomes dull all the operator has to do is to take it to the tool room for re-sharpening, and obtain a fresh saw from his peg, thus practically saving a large amount of stoppages of the machines.

The equipment will naturally depend on the machines in use, but all circular, frame, band saws and plane irons will give a much better result if sharpened automatically, as all teeth and angles are thus produced alike, and each will take its fair share of work—a result that is quite unattainable by ordinary machine or hand sharpening, no matter how skilled the operator may be. Our advice, therefore, to all saw millers is to look well after the tool room, which someone has very justly termed "the heart of the mill."

Working "Stuck" Screws

When it is necessary to move a planer or some other machine bed a considerable distance up or down, more than it has been accustomed to moving, the screws invariably stick and refuse to pass through the nuts, says M. C R. in Wood Craft. This is on account of the accumulation of grease and dust upon the screws and possibly in the nuts. In fact, the screws are then actually "rust-stuck" with sawdust.

Almost any screw when in the above condition will yield to the following treatment: Turn the screw ahead a turn, or a half a turn, as convenient, then, with almost the same motion of the wrist, give the screw a return pull, at the same time turning it backward an eighth or a quarter of a turn. Sometimes, a couple of turns can be made ahead, and a quarter backward will start the coating on the screw. In other cases, not more than an eighth of a turn can be made ahead, and nearly as much movement backwar has to be made to start the coating on the screw.

But, whatever movement is possible, keep it up and eventually the screw will be worked through the nut the required distance. Another very good, though sometimes seldom used method, is to go over the screws in all the machines once in three or six months and clean them thoroughly, also keep them lubricated with graphite and vaseline or some other thick oil. This method is better than the first, and effectually prevents the screws from wearing thin in some places while the threads are of the original thickness in other and the least used portions of the screw.

Grinding Knives on the Head

The idea of grinding planer knives on the head where they run, to insure absolute accuracy of the several cutting edges, is not new, but is now before us in new form. The amount of grinding to be done has been reduced to a minimum by the use of thin steel knives, so that to-day the grinding of a set of knives is a light, short job that can perhaps be done in less time than it formerly required to adjust a set in the machine after grinding. Grinding on the machine was the next natural step after jointing on the machine, and it simply had to come. That it is here now we have but to take notice of the machinery advertising pages to get evidence, and that it will stay, to the extent of grinding on the head—either in or out of the machine—there is not much question, so long as the present tendency in planer practice holds. Some day some one may develop a new and radical departure that will change the trend, but that will be another story. At present the ultra-modern idea is to not only joint knives on the head, but to also grind them there to the jointing.

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Review of Current Trade Conditions

Ontario

The present conditions of the lumber trade throughout Ontario is creating a spirit of optimism among both wholesalers and retailers. Large stocks as a whole are not obtainable, but still, outside of hemlock there seems to be enough to meet the demand, which is heavy. Prices on the whole are well maintained, and if anything there is a tendency for an advance. Hemlock, particularly dry stock, is becoming very scarce. There is a heavy demand for this grade, owing to the large amount of building going on, and retailers state that they cannot buy dry stock of any kind. Wholesalers in general, also state that the market is pretty well cleaned up. Prices have advanced during the past two weeks in practically all grades, anywhere from 50c. to $2.00 per M. 1 x 4 and 5, 9 to 16 No. 1 is now worth $16.50. 1 x 6, 9 to 16 $19.50, and 1 x 10 and 12, 9 to 16 $19.00. No. 2 both inch and two inch has gone up $2.50 per M., while 2 x 4 to 12 and up to 18 and 20 feet has also had an advance about $1.00 per M. In No. 2, 2 inch and 4 inches and up in width, 6 to 16 feet, quoted at $13.50 in our last issue is now worth $15.50. It will be seen from these figures that hemlock, on the whole, is worth upwards of $2.00 per M. more than the topprice last year. This season's cut is beginning to arrive, and it is thought that this will have a tendency to relieve the present market conditions to some extent, although contractors and others are rather pessimistic, as they state that their specifications for buildings on which they are working, all call for dry stock.

The mills are reported working overtime to catch up with the shortage, but it does not look from the present demand as if they will accomplish anything to this end until the season is practically over.

Hardwoods remain about the same, with the exception of birch and the lower grades of elm and basswoods. The demand is good in all lines, and prices remain firm. Birch is particularly scarce and dry stock cannot be had under any consideration. A well known wholesaler when asked about market conditions regarding birch, said that the demand was far greater than the supply and that he did not know what the furniture and implement manufacturers, and others who use this wood extensively, would do for winter stock. The Ontario and Quebec cut have been practically disposed of, owing to the abnormal demands. American wholesale manufacturers are sending numerous enquiries for Canadian birch, but practically all their enquiries are being turned down, as the Canadian mills cannot even supply the local demands. Cull elm and basswood are also on the rise. This is thought to be due to the scarcity of hemlock and pine culls, which are used by the box factories for crating purposes. These culls are being called for continually and as they are none too plentiful, a further advance is looked for. Oak is in good demand and prices remain steady. Maple, which is used extensively by implement and furniture manufacturers, is also hard to get. Last year's cut of this lumber was small, and in consequence this year's heavy demand has depleted the market, although prices have not advanced to any considerable extent. Lath and shingles also have a fair market. XX B. C. shingles are now worth $2.30, a drop of 10c. on the last figures quoted. Stocks are coming in a little faster than they did a couple of weeks ago and wholesalers and retailers report good demands at fair prices, and a likelihood of a further demand in the near future.

The millmen, wholesalers and others throughout Ontario who are moving stocks to any considerable extent, are complaining about the continued car shortage. In some localities, particularly where the railroad companies have extensive railroad yards, cars are plentiful, but in other districts, notably the Ottawa Valley and the north-eastern part of Ontario, cars cannot be had. The railway companies are coming in for many scathing remarks on account of this shortage, but they say they are doing all in their power to relieve the present conjestion, but that they cannot do very much, owing to the great demand made upon them this year by the manufacturers, which was totally unexpected. The crop this year in the west promises to be an abundant one and from the present outlook the railroad companies will have considerable difficulties handling the large amount of grain which will need to be transported to the east. Millmen, as a general rule, expect that the lumber trade will suffer considerably from shortage of cars when the railways start to move the grain crop.

It is stated that the Standard Chemical Company, of Manning Chambers, Toronto, contemplate erecting a large lumber mill and chemical works at McLeod, Alta., which will cost in the neighborhood of $1,000,000.

Eastern Canada

The best of business conditions exist at the present time in the east. Prices are if anything on the increase owing to the difficulty in securing stock. Dry stocks around the eastern States are scarce, although it is hoped that the new stock which will come on the market shortly, will have a tendency to relieve the present situation. The common grades are mostly in demand for building purposes and a large amount of building is being considerably retarded, owing to the scarcity of these grades. The Eastern States trade is very good with firm prices and an abnormal demand. Offerings are limited, however, and the mills are reported working overtime to accumulate stock. Spruce on the whole is fairly firm. The general demand is not so good as it has been, but fair enquiries are being made. Retailers throughout the east are not restocking their yards as they have done heretofore. No special reason is given for this beyond the fact that they cannot get the particular stocks they want, owing to the scarcity. Frames in Boston are commanding $25, but some sales are reported at $24.50. Hemlock is very much wanted in the east, but dry stocks cannot be had. Boards are in demand at good prices, $22.50 being the standard figure. Low grade stock for building purposes is wanted very badly in New York and Boston, as is also white pine.

The hardwood situation is good but prompt shipments are difficult to obtain. Wood work and furniture factories are working full time, but cannot replenish their stocks. Maple and birch are commanding fair prices and are in good demand. Practically all hard woods are at a firm price with offerings small. Lath and shingle prices are good, although the demand is normal. Extras are quoted in Boston at from $3.85 to $3.90 with some sales at $4. Exports to the old country, which have been affected by the dock strike, are again getting into normal shape. Vessels that have been tied up for a considerable time are arriving and stocks that have been waiting shipment will be shipped at once.

Lumbermen in eastern Canada are complaining a great deal about the car shortage. The Canadian railway companies at the present time cannot handle their ever-increasing business owing to lack of rolling stock. The different companies have large numbers of cars on order, but cannot get them owing to the inability of the car manufacturers to get stock. The C.P.R. car shops in Montreal are overloaded with orders as is also every other car shop in the eastern counties, and as the grain crop this year promises to be far in excess of any previous year lumbermen as a general rule are pessimistic as to the ability of the railway companies to handle both the grain crop and the lumber trade, which promises to be heavy.

Great Britain

The Dock Strike in England may be considered practically at an end, but business has not as yet assumed a normal condition. The London Docks, in fact the docks in all parts of the United Kingdom, are crowded with lumber at the present time, and inland dealers are complaining a great deal about deliveries. The English railway companies are coming in for a lot of criticism from English lumber firms, owing to their inability to deliver shipments. The strike, while it has crippled the railway operations to a great extent, is thought to be only a minor cause for the present congestion, and English dealers are pessimistic regarding the future movements of large stocks by the railway companies. Trade in London is fair; the prices, if anything, have increased, but the freight rates throughout the United Kingdom are very uncertain and for that reason all timber merchants, whether in London or in the country, are at all times apprehensive as to buying in the face of the numerous changes, although it is expected that the cessation of the labor troubles will have a bearing on this question. Deals are cheaper than they have been on one or two previous occasions by about 10s. per standard, prices on battens being specially well maintained. The pine market is still strong; prices are stiff with increased freight rates and a further rise is expected. At Liverpool, the spruce deal freight market still has an upward tendency; 56s. 3d. per standard is being paid for deliveries from New Brunswick and Nova Scotia, an increase of 1s. 3d. The spruce market is not any too good, the consumers generally contenting themselves with buying much smaller lines than usual. Taking the demand all around, it is fair but the building trade is not up to the expectations, although prospects are better.

The recent strike in the cabinet trade is seriously interfering with hardwood importations. Stocks on the whole are exceptionally low, lumber in the lower grades being short. Shipments as a rule are nearly all going direct from the quays into consumption. At Bristol the sudden cessation of the strike caught the timber importers rather unexpectedly, as they did not expect to resume operations

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for some time. Values are well maintained and stocks on the whole are in a fair shape. The upward tendency of the freight rates is being felt by the manufacturers and shippers, and f.o.b. operations will be considerably restricted as a result.

A further strike of the woodwork machinists association is expected at Hull, but it is not thought that this will inconvenience the manufacturers to any great extent. Chartering is slow, importers being naturally reluctant to give way to the ship owners' present freight demands, and this alone looks like bringing about a late season.

Conditions at Glasgow remain steady with if anything an increased demand. The recent price cutting has ceased to a great extent, and dealers have at the present time more confidence in the future of the market. Shipbuilding requirements continue good with every probability of becoming better in the near future. The furniture trade is active which makes the demand for hard woods very good. Plain oak boards in No. 1 Com. are in demand and are commanding a good price. Wagon builders' stocks are very scarce and prices in these lines are going up. Spruce is also somewhat scarce. It is being imported in small quantities and is easily disposed of on the quays at good figures. The boxmaking trade has improved considerably and a good season is expected.

United States

American trade conditions at the present time are very favorable in all lines, hemlock being particularly in demand. Dry stocks of this lumber are very scarce, and with the steady demand, the recent advance of 50 cents a thousand does not seem to have had any effect on the market to any extent, beyond apparently making it firmer. The general demand is good, stock being offered in limited quantities only. Enquiries are of larger volume, and reports indicate that mills are apparently on a somewhat more active basis. Hemlock boards are particularly scarce. Eastern dealers report a steady demand for them, but state they cannot obtain them under any consideration. Wholesale dealers report shipments coming in steadily and expect to have their stocks in good shape in the course of the next 60 days. So far prices have advanced this year $2 over the quotations of last season, the increase in prices made by the manufacturers in the West apparently having considerable influence with other dealers throughout the States. The pine market is about normal at the present time; the demand is fair and prices remain firm. California white and sugar pine being particularly in demand. Northern pine prices are strong and well maintained. The box factories are all busy and are buying up the lower grades in large quantities. The Western mills are running full time and reports state that they are cutting large stocks of pine for future use. Box lumber has been particularly in demand this season, the manufacturers stating that if anything, the supply has been short. A large amount of this material is being imported from Canada and is apparently giving satisfaction. Retail dealers throughout the States are not buying so readily as they did a few months ago. They are apparently waiting for crop reports and also the outcome of the impending elections. Building operations have been extensive with indications that they will remain so for some time. As a general rule, the market is good, with prices if anything showing a tendency to advance. In the Southern field the mills are working overtime, in some localities they are running a night and day shift, and this means that the volume of stock being turned out is large. Most of the mills are booked ahead with orders that will keep them going for the next 60 to 90 days, and it is thought that by the end of that time, general yard stocks will be in fairly good condition. Southern pine is in good demand, heavy timber and joists being particularly asked for. Car material finds an active market as does also sash and door stock. Prices on the whole remain about the same with little indication that there will be any change in the near future. Spruce is very scarce throughout the States. Offers are very limited and prices have advanced in some cases from 25 to 50 cents. Dry stocks are particularly hard to obtain with an extensive demand. Frames in Boston at the present time are commanding $25, the bulk of the business being done at this figure, although some sales are reported at $24.50. Random is very firm with a good demand, and boards are quoted about the same.

Red cedar shingles are very scarce at the present time throughout the States. The demand has increased abnormally during the past couple of weeks, and apparently the dealers have not been prepared for it. Prices are steady with a tendency to advance, stars being quoted at $2.51 and clears at $2.97 at Minneapolis, Minn., with an extensive demand at these figures. The fall trade it is thought, will be active with if anything a slight advance in prices.

Lath on the whole is in demand, the prices remaining about the same. 5/8 in. command $4 to $4.10 and for 1½ in., $3.65 to $3.80. Hemlock lath is particularly scarce, while spruce is none too plentiful. Most dealers are holding for outside prices, although as a rule the prices above quoted are standard.

Trade News and Notes

A number of papers pertaining to methods for preventing forest fires were read at a recent Conservation Conference held at Lansing, Mich., between Michigan foresters and timber owners. In these papers some good ideas were brought out which will be acted upon at a later date.

Buffalo lumbermen to the number of 100 held a picnic at Cascade Park, Erie County, New York, on June 18th last. The picnic is an annual affair held by the Buffalo lumbermen and was a marked success in every way. Twenty-two big touring cars carried the members from Buffalo to the park. Two baseball games were played, a description of which would cover many pages, some of the points of the games being very humorous. A big banquet at the "hall" on the grounds brought a very successful day's outing to a close. It was altogether a day that Buffalo lumbermen like to remember and like to repeat as often as possible.

The Pennsylvania Railroad Company are taking an active interest in the reforestation of Pennsylvania, having planted more than 4½ million trees in the past 10 years. This fact which was brought out in a recent report, shows on what extensive lines this railroad company has undertaken the conservation of the natural resources of the territory traversed by its lines. The company's nurseries which are located at Morrisville, Pa., are very extensive, over 500,000 trees being shipped from them during the past year. The company states that in all of the 14 different tracts that have been under conservative management, the fundamental object has been to improve the condition on the properties and leave them in a productive state. The rejuvenation of this otherwise worthless forest land will add not only to the ultimate forest wealth of the state but will improve the conditions as regards stream-flow and run-off.

The Mississippi yellow pine manufacturers are quite wrathy over the recent so-called 10-hour law enacted by the Mississippi legislature, and are at present trying to devise some plan looking to relief from its oppressive operations. The law strictly says that no man shall work more than 10 hours a day as a lumberman. The sawmill owners strictly object to this, as they state that at present they have one shift of 13 hours, whereas if they put on two shifts they would have to make the salary so low for 6½ hours that the men could not get a living wage. Interesting developments are expected before this matter is thrashed out.

The reforestation and conservation of the forests adjacent to the city of Peterborough, Canada, was minutely dealt with by Professor Fernow, the well known Government expert on such matters before the Peterborough County Council last week, and as a direct result of the Professor's lecture the council appointed a committee on reforestation, who will investigate conditions and report at a later date. Professor Fernow said that the county was admirably equipped with rivers and lakes to supply water power for the carrying on of the lumbering industry so that this power might be utilized. He also urged a more efficient system of fire ranging.

Mr. George Busk Crow, well known to the lumber trade of New Brunswick and Nova Scotia, died at his home at Rockferry, Cheshire, England, on June 15th last. Mr. Crow was a Canadian by birth having been born at Pictou, Nova Scotia, in 1822. Upwards of 50 years ago, Mr. Crow established himself in Liverpool, England, as a lumber merchant and ship owner, dealing principally with the eastern Canadian provinces and Gulf of Mexico ports. He was a member of Mersey Docks and Harbor Board and also very prominently connected with the Congregational Church of England. His wife, who was Miss Jane Lawson, a niece of the late Sir William Lawson, died a few years ago.

At a recent meeting of the directors of the Canadian Forestry Association, the following resolution was recorded. That the Board of Directors of the Canadian Forestry Association place on record their approval of the proposal that at the earliest practicable date a regulation be brought into force compelling the use by railways of oil burning locomotives in dangerous districts and during dry seasons. A copy of the resolution was sent to the Board of Railway Commissioners of Canada, at Ottawa.

Canada's exports of printing paper in the month of 1912 show a marked increase over April of 1911. The exports total in value $259,736 made up of different classes of paper, the United States taking 2,514,483 lbs. of Canadian rags.

The president of the Dominion Steel Corporation at the recent annual meeting held in Montreal announced that that company had purchased timber limits and a sawmill at Dalhousie, N.B., in order that it might be assured of a sufficient supply of mine timbers.

A landslide which occurred at St. Luc on the River Champlain, Quebec, blocked the river for 300 yards, causing the water to rise 23 feet and wipe out Fugeres' sawmill, together with yards and boom.

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Building Returns for the Half-Year

Twenty-Seven Cities Expended Nearly Seventy Million Dollars —A Proportionate Increase of 28 per cent. for the Dominion

Official returns submitted to the Canada Lumberman by twenty-seven leading cities of the Dominion, show an expenditure on building for the first six months of 1912, of nearly seventy millions, compared with some fifty-four millions for the corresponding period of 1911—a proportionate increase of 28 per cent. It is of interest to note upon reference to last year's returns that the total for the whole of 1911 was roughly $120,000,000—an increase of 29 per cent. over the year's total for 1910; so that the increase of 28 per cent. for the first six months of the current year, as shown in the accompanying table, is an indication, in general, of the proportionate and healthy growth of the whole country, and in particular, of the gratifying activity in constructional circles. Such records as these are peculiarly significant to the lumber industry.

Toronto maintains her position at the head of the list with an expenditure of thirteen millions and a lead of two millions over Winnipeg and five millions over Vancouver and Montreal, which follow in the order named. Edmonton, with an expenditure of nearly eight million dollars and the remarkable gain of 376 per cent., makes the most notable achievement. A great deal of attention is being focussed upon the Alberta capital from the other side of the border and it is fair to presage continuous activity for this city. The reputation of the province of Saskatchewan is upheld by Saskatoon, which records an outlay approaching five million dollars and an increase of 80 per cent. The Ambitious City makes a gain of 40 per cent., the City of Cyclones, 15 per cent., and the Federal Capital 52 per cent. Fort William occupies the tenth position in the list with a noteworthy gain of 132 per cent. Decreases occur in the case of only two of the larger cities.

City	June, 1912	June, 1911	1st 6 mos., 1912	1st 6 mos., 1911	Approx. inc. % for 6 mos.
Toronto	$3,292,766	$2,384,440	$13,195,271	$11,939,953	11
Winnipeg	3,144,870	2,893,050	11,205,600	9,058,150	23*
Vancouver	1,219,780	909,828	8,132,720	9,191,524	12*
Montreal	1,718,505	1,780,860	8,065,993	7,306,136	11
Edmonton	2,548,135	357,929	7,725,622	1,620,431	376
Saskatoon	1,601,000	779,725	4,634,685	2,574,441	80
Hamilton	670,600	618,675	3,145,600	2,246,780	40
Regina	1,048,830	716,025	2,549,770	2,936,930	15
Ottawa	417,750	404,975	2,120,000	1,393,370	52
Fort William	232,070	220,390	1,743,425	750,075	132
Maisonneuve	243,200	294,900	817,428	748,900	90
New Westminster	96,850	93,450	785,578	613,580	28
Lethbridge	103,503	94,960	719,343	528,950	36
Port Arthur	174,884	183,450	700,994	312,985	124
Brantford	100,730	99,095	657,230	282,228	133
London	140,558	44,756	509,598	458,423	11
Windsor	114,125	127,630	433,830	396,795	9
St. Boniface	162,005	37,185	395,530	467,880	16*
Berlin	79,825	35,800	332,950	242,585	37
St. John	156,200	62,000	315,950	211,700	49
Sydney	85,200	98,247	254,616	282,052	10*
Kingston	75,335	54,885	224,059	133,223	68
Galt	28,080	11,530	204,032	163,920	25
Nelson	22,600	2,970	198,015	90,705	118
Stratford	81,900	16,000	202,791	53,590	278
Peterborough	67,095	25,153	188,858	186,786	1
Welland	19,313	.....	124,186	.....	
Totals	$17,645,709	$12,346,908	$69,583,674	$54,192,092	

Proportionate increase for 1912 on half-year totals for above cities 28 per cent. *Decrease.

The season of forest fires is again with us and it behooves every lumberman and owner of standing timber to take the necessary precautions to protect his yards and limits. During the past two weeks a number of large yards situated in Ontario and western provinces have been destroyed, besides an immense amount of railway material in the vicinity of Cochrane on the north shores of Lake Superior, where forest fires have been raging for the past week. Canadian standing timber of all kinds is becoming scarcer year by year, and every lumberman who has the interests of the Canadian lumber trade at heart should bestir himself and do all in his power to see that his employees do all in their power to prevent these annual conflagrations. The railroads as a rule are the greatest source of danger. Sparks are a great factor in starting forest fires, and the rigid enforcement of a law compelling the use of spark and cinder arresters should be seen to at once. A fire patrol along the tracks would also be of great assistance. Settlers and campers are also careless in regard to fires in a great many instances. Settlers start fires to clear their lands and campers carelessly leave fires smouldering—all of which is a constant source of danger. Rangers have great difficulty in keeping track of campers, settlers and prospectors, etc., who go through their districts and as a rule cannot get in touch with them. The Government or railway company should publish a list of the rules governing fires, etc., in the bush, and distribute them to the large number of campers who go north for the summer and fall to fish and hunt. The co-operation of the lumbermen of the country would help materially along this line.

Shimer Cutter Heads and Cutters!

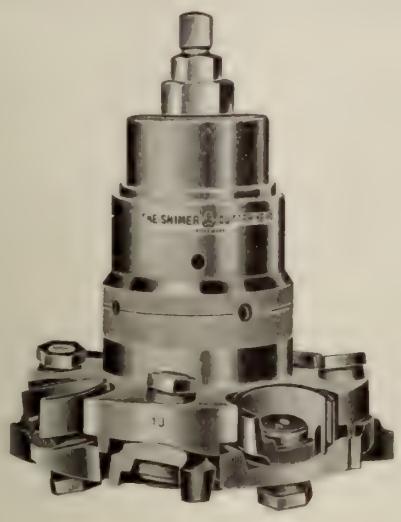

Fig. 627

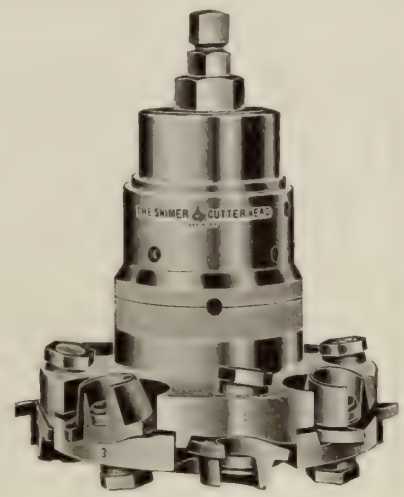

Fig. 628

The "Shimer Limited" with Expansion, price $72.46 per set, complete

The Ultimate Cost

of your Cutter Heads is the thing to be considered: that is the sum of the first cost plus the cost of maintenance. Sometimes the Ultimate Cost of a tool is twice or many times the first cost. Just when that time will come depends upon its wearing power or its liability to break and cause damage.

"Quality" has always been a special feature in Shimer Cutter Head construction and has been the means of keeping down the cost of maintenance. This quality feature of the Shimer Cutter Heads has been growing with the variety of tools put upon the market, until almost invariably wherever the name Cutter Head is mentioned the mill man is sure to think of the **Shimer** Cutter Head.

These tools are made for many varieties of work. For matching Flooring, Ceiling, Wainscoting, etc., they are made to suit machines from the slowest to those taking stock 150 to 170 lineal feet per minute, and are sold from prices ranging from $26.00 per set for Figs. 1 and 2 to $72.46 for our Shimer Limited Cutter Head made especially for the fast feed matcher.

For any work you get out in quantity we can furnish tools that will save the "make-ready" time, lessen the amount of material going into the offal pile and turn out a quality product at a saving that will soon pay for the tools.

Let us know your Cutter Head conditions. We are sure we can serve you acceptably, as we have so many others, in making either regular or special tools for your particular work.

Write us now!

Popular Cutter Heads

The most popular of The Shimer Cutter Heads are Figs. 202 and 203. The Bits are held within conical duplex bit seats, self-centering, arranged with the very complete Expansion feature for the fine adjustment of tongue and groove thicknesses.

Price with 4 bits to each head, the set $40.95
Price with 6 bits to each head, the set 49.27
Price with 8 bits to each head, the set 57.60

Complete with Flooring Bits. The Heads will also receive Bits for thin Ceiling—⅜ at $1.30 each and Bits for 2-in. thick plank at $1.63 each.

Jointer Heads

For jointing plain edges we make several styles of Jointer Heads provided with shearing effect to produce the easiest and at the same time the smoothest work. Made of Steel Forgings they supply the strongest and best. Our very reasonable prices put the tools within the reach of all.

Price, with 4 bits to each head, the set, 1¼-in. $31.20
Price, with 4 bits to each head, the set, 2-in. 33.28

Ship Lap Heads

to give you the best service must be of a kind that is always ready and in interchange with matcher and other Heads you may have fitted to your machine, thus avoiding a change of machine guides. This is one reason why the Shimer Ship Lap Heads are so generally used. The other reason is that they do work so satisfactorily that all who know their convenience take them in preference to others.

Price, with 4 bits to each head, the set, 1½-in. thick, $34.84
Price, with 4 bits to each head, the set, 2½-in. thick 35.88

Double Ceiling Heads

These heads have a special design to suit the purpose of double tonguing and grooving, with overlapping of the bit cutting edges to produce perfect clearance and to protect the leading points from unnecessary friction and wear.

They double the capacity of any matcher or moulder and provide a means of turning out single surfaced ceiling or flooring upon the most economical basis.

Price, Double Ceiling Heads complete with Bits, net, $40.94

Door, Sash and Coping Tools

That save all the hand fitting. No changing of patterns, therefore, no trouble in framing the door and sash parts when they are matched up with the Shimer Cutter Head. We relieve you of that detail of the business when we place the mould in counterpart within the contour of the Bits. The Bits are filed only to sharpen and being set by means of a gauge give accurate and uniform results. Prices very reasonable.

Reversible and One Way Cutters

The Shimer Reversible Cutters for Single Spindle Shapers, Variety Moulders or Friezers, are carefully moulded opposite to the shape of the mould to be produced, in such a way as to have only the cutting edge touch the lumber. They are complete—inexpensive—time saving. We also make One-Way Cutters for the Double Spindle Shaper.

Thin Steel Knives

Advanced ideas referring to the planing and surfacing of lumber have developed into the use of the thin blades, made from high speed steel, which when properly tempered and treated, serve for one or two days of work on hard maple, oak or hickory.

These blades are known as our Bedee Knives and are recommended by users as the best that can be procured. For the benefit of those desiring to use this style of a knife we have facilities to furnish them in any length or thickness.

Write us about your requirements.

SAMUEL J. SHIMER & SONS,

Branch of **Milton, Pa., U. S. A.** **GALT, Ontario, Can.**

Richest and Purest Milk

UNSWEETENED

from the choicest dairy sections of Canada. From cows properly fed and cared for.

Borden's

Peerless Brand

Evaporated Milk

Dilute with water to desired consistency and use same as "fresh" milk.

Convenient Economical Safe

Borden's Condensed Milk Co.

Originators of Condensed Milk and Largest Manufacturers of Milk Products in the World.

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EDGINGS

Ontario

Serious forest fires are reported from the Porcupine district.

J. B. Lyle's sawmills at Smith Falls, Ont., suffered a small loss by fire recently.

Fire did upwards of $1000 damage in the lumber yards of W. J. Trick, Oshawa, on July 1st last.

The Superior Match Company will erect a factory at Owen Sound, Ont., in the course of the next year.

A fire at Neely's mill at Thornlaw, Ont., destroyed 550,000 ft. of lumber, and 30,000 ft. of saw logs a few days ago. No cause can be assigned as to the origin of the fire.

The partnership existing between Messrs. Parker & North, Winnipeg, Man., has been dissolved. This firm dealt in builders supplies, and was well known throughout the west.

A firm to be known as Clyde Limited with a capital of $40,000 has been incorporated and will locate in Lanark, Ont. The company will deal in lumber, timber limits and timber, and will start business at once.

A new firm has just been announced at Cobalt, in the Northern Lumber Mills Limited, with a capital of $40,000. This company will carry on business as lumber dealers, sawmill owners and general merchants. The head office is at North Cobalt.

R. E. Moore of Lions Head, a prominent lumberman of Ontario, dropped dead while bowling on the green at Lions Head, Ont., on June 27th last. Mr. Moore conducted a sawmill at that place for a number of years and was very well known to the Ontario trade.

Several bush fires have been raging at the present time in the vicinity of Cochrane; the first of the fires broke out at Iroquois Falls, since when many others have occurred. There has been no rain for a considerable length of time which gives the fire added advantage.

A forest fire near Sheldrake, 40 miles north of Sault Ste. Marie, Ont., has destroyed nearly 500,000 ft. of high-grade white pine logs, valued at $750,000. The timber was the property of the Bartlette Lumber Company. The fire is attributed to sparks from a locomotive.

The sawmills of the William Laking Lumber Company at Haliburton were burned to the ground on the morning of July 1st. The loss is estimated at from $20,000 to $25,000, with but very little insurance. The lumber yard and adjacent properties were saved through the efforts of the employees of the mill.

The McKinney Co. Limited of Woodstock is a new concern that will deal in all kinds of lumber and building material. They are capitalized at $40,000 and the provisional directors are as follows: H. J. McCombe, contractor, Embro; A. J. Johnston, contractor, Woodstock; W. G. Runds, contractor, Woodstock.

James Graham, of Bates & Innes, Carleton Place, Ont., was drowned in the Mississippi River at that place on June 24th last. Mr. Graham was superintending the putting of stop logs in the dam when he made a false step and was carried away by the water before anything could be done for him. His body has not been recovered.

Forest fires near Superior Junction on the north shore of Lake Superior are reported to have done considerable damage. Several bridges along the line of the N.T.R. have been destroyed and thousands of ties have been burned. It is thought that construction work will be held back for some time as the contractors are said to have lost a large amount of supplies.

The Riordon Paper Company of Hawkesbury and Merritton, who also own four large sawmills and valuable timber land in Quebec, have announced a new bond issue of 6 per cent., first mortgage bonds. The company's holdings in Ontario are regarded as being very valuable. They consist largely of spruce limits on the Rouge River. Their earnings for 1912 are estimated at $300,000.

Work was started last Tuesday on the construction of the new $1,000,000 paper mill at Thorold, Ont. James Battle, Esq., turned the first sod. Work will be rushed on the plant, which is expected to be ready for business in the course of the next year. Among those present were Warren Curtis, Jr., President and General Manager of the Ontario Paper Company, and Mr. William Prack from Chicago.

The mills of the Rat Portage Lumber Company, Kenora, Ont., were destroyed by fire on June 30th last. The mills were valued at $100,000 and at the time of the fire were cutting on an average 100,000 feet per day. A new engine costing $10,000, a gang saw and two band saws had just been installed. 50,000 feet of lumber on the platforms, several box cars and a large ice house were also destroyed. The loss is covered by insurance. The mills will be rebuilt at once.

Eastern Canada

Forest fires near Halifax, N.S., caused some alarm a few days ago.

The sawmills of A. E. Grandall, Neperis, N.S., were burned to the ground a few days ago.

Weston & Little, lumbermen and contractors, have just been registered at East Angue, Que.

The Quebec & St. Maurice Industrial Company have taken over the lumber business of D. H. Pennington, at Lyster, Quebec.

Messrs. Gezen & Shluker have been registered at Montreal, Que. They will open a lumber yard in that city.

The Chouinard Collins Lumber Company Limited, located at St. Jerome de Metane, Que., have obtained a charter.

The wood working plant and sawmills of Dochmer Bros. at Westlahave near Bridgewater, N.S., was completely destroyed by fire on June 24th last. The loss will be at least $60,000, with no insurance. The mills were one of

the best in the province and equipped with the most modern machinery Dochmer Bros. started the mill 30 years ago and were crowded with orders from the maritime provinces at the time of the conflagration. The mills will be rebuilt at once.

A new sash and door factory has been started at East Angus avenue Messrs. Hopkins, West & Little are the proprietors

A small fire occurred in the lumber yard of Morin Freres, St. Lawrence and Chenier streets, Montreal, due to a transformer on one of the electric light poles catching fire, and communicating it to a pile of lumber

Damage to about $12,000 has been caused by a fire in the factory of the Starke Cooperage Company, King street, Montreal. The kilns on the third floor were completely destroyed

Damage estimated at between $10,000 and $15,000 was done a few days ago to the plant of the Starke Cooperage Company, King Street, Montreal, by a fire which broke out in the kilns on the third floor. The loss is covered by insurance.

The Richelieu Lumber Company, Limited, Montreal, have commenced to operate their mill at Bonaventure River, P.Q., recently purchased from the Doutre Laviguerir Company, Limited. The drive has been finished and the company expect to cut about five and a half million feet.

Jos. Bedard & Son, of Richmond, Que., have dissolved partnership. The firm deals in lumber and general builders' supplies. H. I. & H. F. Bedard will continue the business under the same name.

A corporation to be known as the Marysville General Stores, Limited, capitalized at $50,000, is at present applying for letters patent, re the taking over of the mercantile business of the Partington Pulp and Paper Company at Marysville, N.B.

La Compagnie d'Immeubles de St. Pie Limitee, with a capital of $100,000, was incorporated recently in Montreal. The company will deal in all kinds of building material and erect buildings, etc. They will have their head offices at St. Pie, Quebec.

The Franco Canadian Timber Company, Limited, a new concern with a capital of $3,500,000 in dollar shares has been registered in London, England. It is said that the company possesses valuable holdings in Canada, and that they will carry on the business of saw mill owners, timber and lumber merchants and pulp or paper manufacturers.

Western Canada

The Galvin Walston Lumber Company were burned out at Edenfort, near Battleford, Sask., on June 22nd. Their loss is estimated at $25,000.

Cushing Bros. planing mill at Regina, Sask., was completely destroyed by the cyclone that visited that city recently.

J. F. Winlaw's sawmill at Winlaw Siding, B. C., suffered severely from a fire that visited that section recently.

The planing mill of the British Canadian Lumber Company Limited, at Crescent Valley, B.C., was damaged by fire recently.

The yards of the Saskatoon Lumber Company, at Saskatoon, Sask., were visited by a fire recently. The loss was small.

The yards of the New Lumber Company, of Medicine Hat, Alta., were visited by a small fire a few days ago.

The Paulin Lumber Company of Nelson, B.C., will shortly erect a planing mill and sash and door factory on the new townsite at New Era.

A number of steamers and schooners are at present loading timber at British Columbia ports for Australia, England, South America and the Orient.

British Columbia lumber men are at the present time paying a great deal of attention to foreign shipments. The demand is good and prices are high.

The recent forest fires at Tete Jaune Cache, B.C., have done very little damage. The fire is said to have been a ground fire, meaning that it did not interfere with the timber to any great extent.

Thomas Rutherford, of Brown & Rutherford, Winnipeg, Man., who was very well known to the lumber trade in the west, died recently at his residence at Winnipeg.

Mr. H. R. McMillan, of the Forestry branch of the Department of the Interior at Ottawa, has been appointed chief forester by the province of British Columbia. Mr. McMillan is said to be one of the most brilliant students in forestry ever turned out by the Yale Forestry School.

It is reported that a tract of timber on Vancouver Island valued at one million dollars has been sold recently to the Great Northern Land and Stock Company Limited, of St. Paul, Minn. The company, it is said, will carry on extensive sawmill operations and will acquire other tracts from time to time.

William Alsip, Sr., President of the Alsip Tile and Lumber Company, Winnipeg, died suddenly on June 29th last. The late Mr. Alsip was 78 years of age and had been engaged in the brick and tile making industry practically all his life. He came to Winnipeg 13 years ago with his two sons and founded the present company.

The British barque, "Kinrosshire," with two million feet of lumber on board consigned to Wales, will leave Puget Sound shortly on her voyage. The "wind jammer" is taking out the largest sticks of timber that have ever left the sound. Some of the "toothpicks" measure nearly 3 ft. square and are over 70 ft. long. The lumber is being shipped by the Canadian Puget Sound Lumber Company.

A fierce forest fire has been raging during the past week in the mountain townsite of Laggan, Alta. The C.P.R. Hotel at Laggan, which has accommodation for 700 guests and cost half a million dollars was threatened for some time but was saved through the efforts of 400 fire fighters, who were rushed to the scene on flat cars from Calgary. The latest report states that the fire is slowly burning itself out.

It is expected that the British Columbia Timber and Trading Company, whose sawmills were burned recently at New Westminster, will locate at Port Mann. The present site in New Westminster is now considered to have become much too small for sawmill purposes, and is said to have been acquired by the C.N.R. The company has bought land in Port Mann to the value of $50,000 and it is expected that they will build there shortly.

The Barnhart Log Loader

has been in successful operation in all parts of the country for twenty years and never caused a complaint. We are now manufacturing a new Barnhart Loader known as **Model "12,"** which is specially designed for use in very heavy timber. This loader is built on the same lines as the old Barnhart Loader now known as Model "10" and which we still continue to manufacture. We are operating lumbermen, producing 200,000,000 feet of lumber per annum and we use the Barnhart Loader exclusively. Could we afford to do so if it were not the best? Write us for prices.

Goodyear Lumber Company, BUFFALO, N. Y.

Dry Mill Cull and Box Lumber Becoming Scarce

These grades are being rapidly picked up. We have still a nice stock of last season's cut.

White Pine *for the* **Wholesale Trade**

We advise you to write, wire, or 'phone without delay and get the benefit of our low prices.

Thos. Mackarell & Co.

Ottawa
49 Metcalfe Street

Montreal
Canadian Express Bldg.

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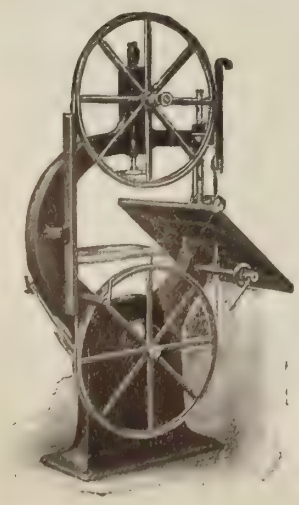

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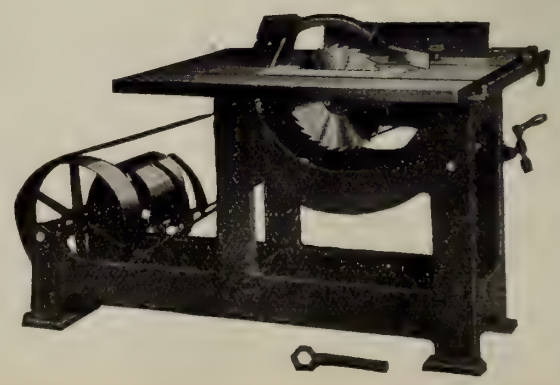
Saw Tables, Jointers, Swing Saws, Band Saws—tools of good, honest construction, newest improvements and conveniences; patterns fresh from the designers.

JOINTERS—8, 12, 16, 20, and 24-inch.
BAND SAWS—20, (foot or belt power) **26, 32, and 36-inch.**
SWING SAWS—6½, 7, 7½ and 8-foot lengths
SAW TABLES—Two Styles

Silver's machines are high pressure machines. They will do your work and do it well, save you money and labor, suit you in sizes and in prices too.

Post up on these tools. Ask for our 1911 catalogue and special prices at once.



THE SILVER MFG. CO.

375 BROADWAY **SALEM, OHIO.**

When you buy a belt

WATERPROOF

What do you consider, First Cost or Service?

It isn't the purchase money that determines whether the belt is cheap or expensive,—
it is the service you get *out* of the belt after it is on the pulleys!
Remember this and get the belting which

Costs Less Per Day of Service

That belting is "AMPHIBIA" every time.
You *may* pay a little more purchase money per foot at the start,—but that's the *last.* The rest is pure satisfaction *and service* long after cheaper (first cost) belting is in the junk pile.

Don't fool yourself with a cheap belt —get "AMPHIBIA" which always costs less per day of service.

WATERPROOF

Made only by

Sadler & Haworth

Tanners and Manufacturers

For Over 35 Years the Makers of the Best Leather Belts

MONTREAL 511 William Street
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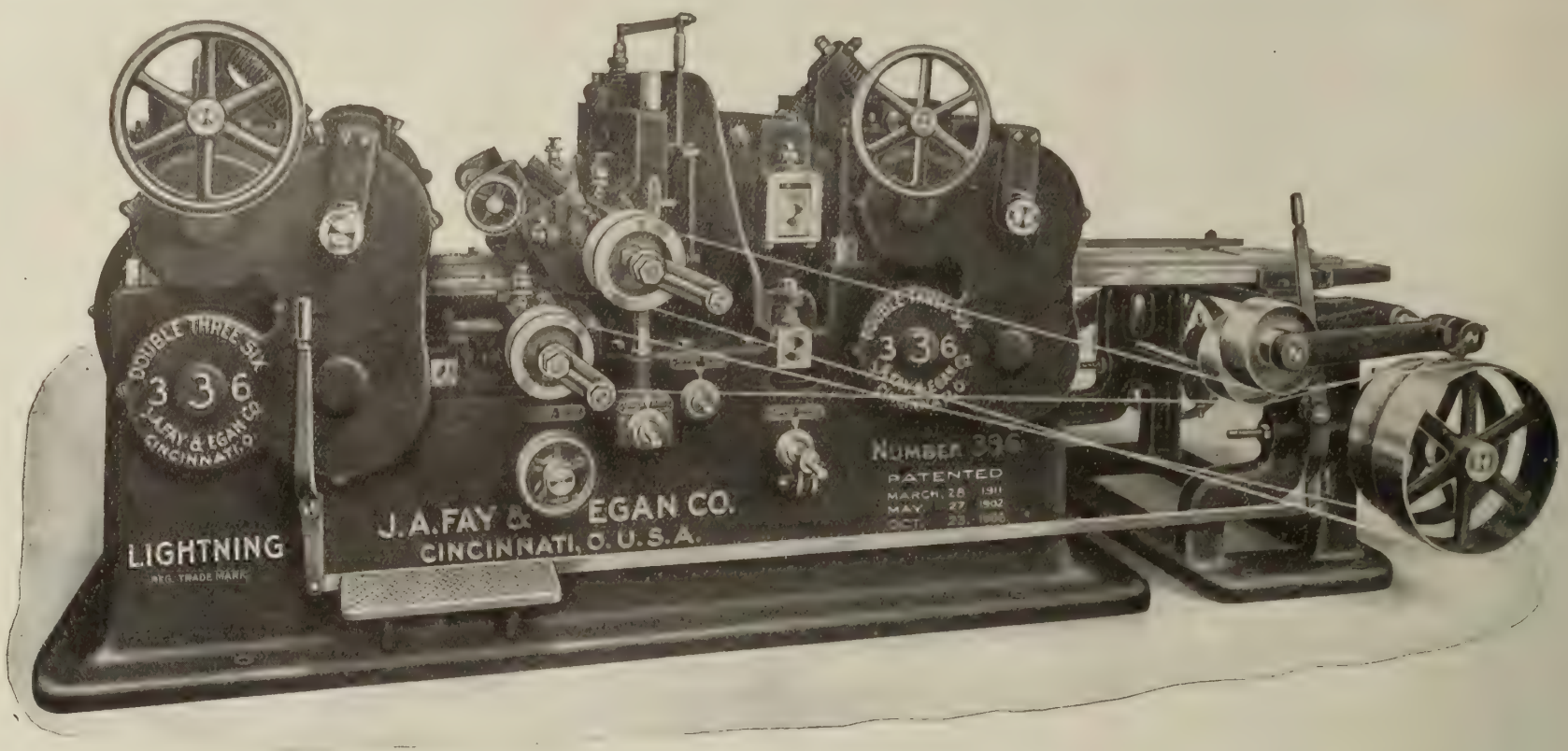
TO INSURE SATISFACTION—STATE WHERE BELT IS TO RUN



Here is the new Double Surfacer that is setting new marks for raising grades and lowering manufacturing costs—the FAY-EGAN "LIGHTNING" No. 336—

—without any "ifs" or "buts" we can unhesitatingly say that the new No. 336 with our patented round heads, thin air-hardened steel knives and jointing attachment will produce perfect surfaces on the most knotty and cross-grained stock at 200 or 250 feet per minute.

—this means that the same lumber you are now using will grade higher, or you can use a lower grade than you now buy and plane it up to what you are now getting.

—and the No. 336 will produce this higher grade stuff at a lower cost per thousand feet than has ever been done before.

—these are strong statements, we admit, but the 336 will back them up—you take no chances in putting one in—it is not an experiment—in the first place it is built on the same general lines as our No. 333 Matcher—now admitted to be ahead of any other—and in the second place the 336's have been in use long enough to prove themselves.

—we are enthusiastic about the 336 because we know what it will do—every owner of a 336 is enthusiastic, too, because he knows he is producing better lumber at a lower cost than his competitor without it—if you will investigate the 336 you will be equally enthusiastic.

Planing Mill and Box Factory Owners write today for large illustration and detailed description of the greatest surfacer ever made—the FAY-EGAN "LIGHTNING" No. 336.

World's Oldest and Largest Manufacturers of Woodworking Machinery.

"The Lightning Line"

J. A. Fay & Egan Co.

Executive Offices and Works, 465-485 W. Front St. Cincinnati, Ohio

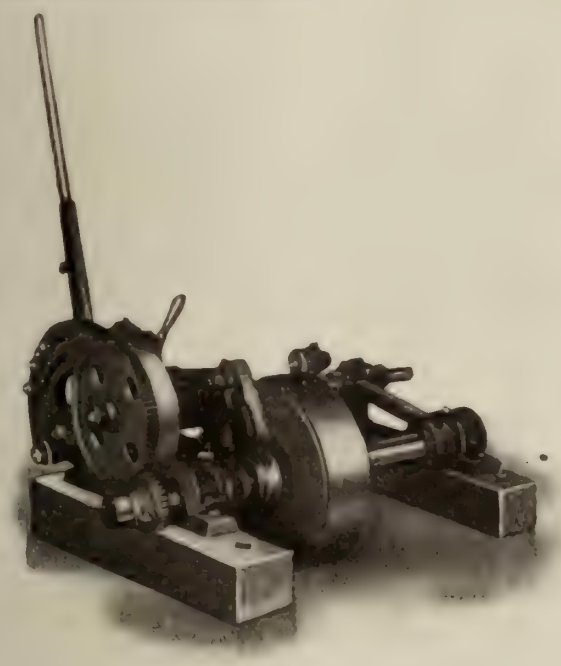
Established 1830.

Sales Offices:

NEW YORK CITY
CHICAGO, ILL.
NEW ORLEANS, LA.
ST. LOUIS, MO.
SEATTLE, WASH.

The Importance of Efficient Mill Machinery

In Millwork, where every portion of the equipment has to undergo the severest treatment with unusually hard conditions only the best machinery will serve. No mill can be run at a profit with inferior equipment. This is an expression of the opinion of men of wide and varied experience in the business.



P. Payette's Improved Mill Machinery, is built to stand all the strain and hard usage of mill work. This machinery is of the special Payette design and embodies many improvements, which add considerably to the efficiency of mill equipment.

The New Patent Saw Mill Dog which operates in soft or hardwood timber of any kind will do good even work in summer or winter with perfect safety.

Payette's Improved Set Works will set even thickness of lumber in all class of timber and will set any size log with perfect ease, Can be changed instantly so as to make either thick or thin lumber and can be put on any make of carriage.

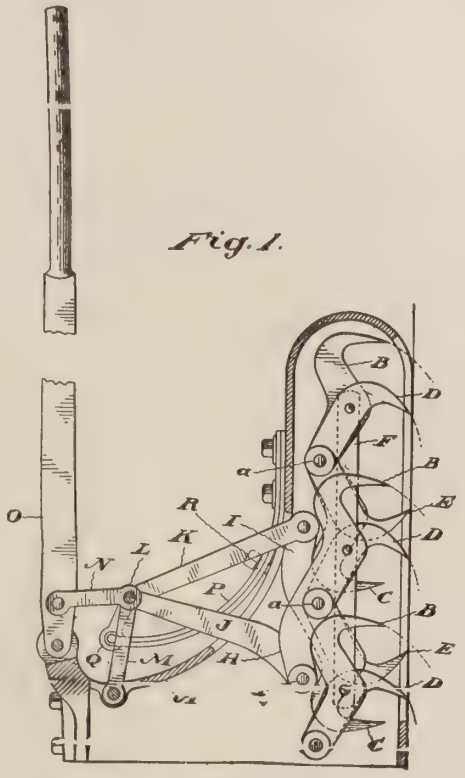


Fig. 1.

We want to prove to you the advantage of this set works in your mill and we are prepared to demonstrate its efficiency and superiority. Full information sent on application. Ask for our booklet on set works.

P. Payette & Co. Engineers & Machinists **Penetanguishene, Ont.**

Buy Guaranteed Chisel Tooth Saws

You need have no doubt about the quality when you buy

SMITH'S CHISLE TOOTH SAWS

No. 2½ Tooth

They are backed by a guarantee as to their durability and will stand up better than any saw made. The shanks are made from a special steel, and we use only the GENUINE "HOE" BITS which are uniform and perfectly true.

Made in several sizes but the following are specially recommended.

NO. 2½ TOOTH—Designed for heavy feeds. Suitable for mills where independent steam feeds are employed, and also for edger saws.

NO. 3—Principally for hardwoods. The best saw where both soft and hard woods are to be cut.

NO. 4—Specially recommended for British Columbia, and for cutting soft, pitchy lumber where more throat room is required.

No. 3 Tooth

Smith's inserted and solid Tooth Saws are specified by the Largest Canadian Manufacturers of Mill Machinery.

R. H. Smith Company Limited St. Catharines, Ontario

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:

1 inch No. 1 cuts and better	$60 00	65 00
1¼ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C & B	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
1½-in. No. 1, 2 and 3 Cuts	48 00	50 00
2-in. No. 1, 2 and 3 Cuts	43 00	50 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	23 00	25 00
1 x 6 common and dressing	26 00	28 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	30 00	32 00
1 x 12 common and dressing	39 00	41 00
1x10 and 12 mill cull stocks	21 00	22 00
1-in. mill cull sidings		18 50
2 x 10 common	27 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	22 50	23 50
1 x 10 inch box and common.	24 00	25 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	24 00	26 00
1-in. mill run shorts		18 00
1-in. dead cull sidings		14 00
1¼-in. flooring		28 00
1-in. mill run Norway		22 00
2-in. mill run Norway		25 00
Norway, c and cf 1-in.	33 00	34 00
Norway, c and cf 1¼-in.	35 00	38 00
Norway, c and cf 2-in.	33 00	35 00
Spruce mill run	21 00	22 00
Spruce mill culls	15 00	16 00
Clear in. B.C. cedar, kiln dried	55 50	65 50

Douglas Fir

Dimension Timber up to 32 feet:

8, 10x10, 10x12, 1x14, 12x12, 12x014, 14x14, 14x16	34 00
8x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 14x18, 16x18 18x18, and 20x20	34 50
6x14, 8x14, 12x18, 18x20	35 00
6x16, 8x16, 10x18, 12r20, 14x20, anh 16x20	35 00
10 x 20	36 00
6 x 18, 8 x 18	36 50
6 x 20, 8 x 20	37 50

Lengths over 32 ft. take the following advances: 33 to 35 ft., 50c.; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5.

Fir flooring, eoge grain	44 50
No. 1 and 2 clear 1-in. Fir rough	45 10
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough	47 10
1½-in. No. 1 4-ft. pine lath	4 50
1½-in. No. 2 4-ft. lath	4 00
1½-in. 32-in. pine	1 60
1½-in. No. 1 4-ft. hemlock lath	3 75
1½-in. mill run hemlock lath.	3 50
X pine or cedar shingles	1 95
XXpine or cedar shingles	2 25
XXX pine or cedar shingles	3 20
XX B. C. cedar shingles	2 30
XXX 6 butts to 2-in.	3 30
XXXX 6 to 23-16-in.	3 52
XXXXX	3 75

Hemlock No. 1:

1x4 & 5-in. x 9 to 16 ft.	16 50
1 x 6-in. x 9 to 16-ft.	19 50
1 x 8-in. x 9 to 16-ft.	20 50
1 x 10 and 12 in. x 9 to 16 ft.	21 00
1x7, 9 and 11 in. x 9 to 16-ft.	19 00
1-in. No. 2, 6-ft. to 16-ft. 2x4 to 12-in., 6-ft. to 16-ft.	14 50
2x4 to 12-in., 12 and 14 ft.	19 50
2x4 to 12-in., 18 ft.	22 00
2x4 to 12-in. 20 ft.	23 50
2 x 4 to 12-in., 22 ft.	25 50
2 x 4 to 12-in., 24 ft.	28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	15 50

Hardwoods—Per M. Feet, Car Lots

Ash white, 1sts and 2nds, 1½ and 2-in.	55 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	48 00
Ash, brown, common and better	37 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	55 00
Birch, 1sts and 2nds, 4/4	35 00
Birch, No. 1, com. and bet., 4/4	30 00
Birch, 1sts and 2nds, 6/4 and 8/4	38 00
Birch, 1st and 2nds, 10/4 and 12/4	42 00
Birch, 1sts and 2nds, 16/4	44 00
Basswood, 1sts and 2nds, 4/4	38 00
Basswood, No. 1, com. and bet., 4/4.	30 00
Basswood, No. 2 and 3, common	17 00
Basswood, 6/4 and 8/4, 1sts and 2nds	40 00
Basswood, 6/4 and 8/4, com. & bet.	37 00
Basswood, No. 2 common and better.	25 50
Soft elm, 1sts and 2nds, 4/4	35 00
Soft elm, No. 1 com. and bet., 4/4	29 00
Soft elm, No. 2 and 3, common	16 00
Soft elm, 6/4 and 8/4 1 and 2	38 00
Soft elm, 3-in. 1sts and 2nds	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4	50 00
Rock elm, No. 2 com. & bet. 6/4 & 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	31 00
Soft maple, com. and better, 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	34 00
Hard maple, 1sts and 2nds, 4/4	34 00
Hard maple, common and better, 4/4.	27 00
Hard maple, 12/4 & 16/4, 1sts & 2nds.	43 00
Red oak, plain, 1sts & 2nds, 4/4	55 00
Red oak, plain, 1sts & 2nds, 6/4 & 8/4	60 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	65 00
White oak, plain, 1sts and 2nds, 4/4.	55 00
White oak, plain, 1sts and 2nds, 1¼ and 2-in.	60 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	70 00
White oak, ¼ cut, 1sts & 2nds, 4/4.	83 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	87 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$53 00	55 00
1¼-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up	40 00	45 00
Pine good strips:		
1-in.	40 00	44 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	50 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	38 00	40 00
1-in. x 4-in. to 6-in.	30 00	35 00
1¼-in. and 1½-in.	45 00	50 00
2-in.	48 00	52 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	33 00	35 00
Pine, No. 1 dressing strips	26 00	31 00
Pine, No. 1 dressing shorts	22 00	26 00
Pine. 8 s.c. and better, 12 ft. to 16 ft.	23 00	24 00
Pine, 7 up s. c. siding 1-in.	22 00	25 00
Pine s. c. sidings 1½ & 2-in.	26 00	30 00
Pine, s. c. strips 1-in.	17 00	19 50
1¼, 1½ and 2-in.	22 00	24 00
Pine, s.c. shorts, 1 x 4	20 00	21 00
Pine, s.c. and bet. 1x5	21 00	22 00
Pine, s.c. and bet. 1x6	23 50	25 00
Pine, box boards:		
1"x4" and up 6'-11'	13 00	14 00
1"x3" to 6", 12'-16'	15 00	16 00
1"x7" and up 12'-16'	16 00	17 00
Pine shorts 6'-11' 1"x10"	20 00	21 00
1x8 and 9 No. 1 barn	25 00	27 00
O. culls r & w p	10 00	12 00
Red Pine log run, mill culls out, 1-in.	14 00	16 00
mill culls out, 1¼-in.	16 00	18 00
mill culls out, 1½-in.	17 00	19 00
Mill run Spruce:		
1"x4" and up, 6'-11	14 00	15 00
1"x4" and up, 12'-16'	16 00	17 50
1"x9"-10", & up, 12'-16'	18 00	19 00
1¼"x7" 8-9" & up, 12'-16'	18 00	20 00
1¼"x10" and up, 12'-16'	19 00	20 00
1½" & 2"x12" & up, 12'-16'	24 00	25 00
Spruce 1-in. clear (fine dressing and B)	24 00	27 00
Hemlock 1-in. cull	10 00	12 00
Hemlock 1-in. log run	13 00	14 50
Hemlock 2x4, 6, 8, 10, 12/16'	14 00	16 50
Tamarac	13 00	15 00
Basswood log run, dead culls out	20 00	22 00
Basswood log run mill culls out	24 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
Pine, s.c. and better, 1x7	21 50	23 00
Pine, sc. and better, 1x8	23 00	25 00
Pine, s.c. and better, 1x9	23 00	25 00
Pine, s.c. and better, 1x10	25 50	27 00
1 x 10 No. 1 barn	30 00	33 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	20 00	22 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	14 00	15 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	11 00	13 00
Lath per M:		
No. 1 white pine 1⅜-in. x 4-ft.	3 75	4 00
No. 2 White Pine	3 00	3 25
Mill run white pine	3 25	3 50
Spruce, mill run 1½-in.	2 75	3 00
Red pine mill run	2 75	3 00
Tamarac mill run	1 25	2 00
Basswood, mill run	2 00	2 50
Hemlock, mill run	1 75	2 25
32-in. lath	1 25	1 75
Pine Shingles xxxx, 18-in.	3 50	4 00
Clear butt 18-in.	2 50	3 25
xx,	1 50	1 75
White Clear Shingles: xxxx, 18-in.	4 00	4 25
Clear butt, 18-in.	2 50	3 00
18-in. xx	1 60	1 85
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

	cts.	
First class Ottawa waney, 18-in. average, according to lineal	85	90

Oak—Michigan and Ohio

By the dram, according to average and quality	62	67

Elm

By the dram, according to average and quality, 40 to 45 feet	80	83
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash

13 inches and up, according to average and quality 25 30
Average 16 inch 30 40

Birch

14 inch	18	20
15 inch	22	24
16 inch	26	28
18 inch	32	30

Quebec Spruce Deals

	Per M.	
12 feet and up x 3 x 9 and up	18 00	19 00
Oddments	15 00	16 00
Boards, 1 and 2 in.	15 00	16 00

Birch Planks

1 to 4 in. 16 00 17 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	54 00
1 in., 8 in. and up wide	67 00
1¼ and 1½ in. and up wide	69 00
2 in. and up wide	72 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	67 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	47 00
1¼ in., 8-in. and up wide	57 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½-in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	48 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	22 00
1-in. x 5-in.	24 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	30 00
1-in. x 12-in.	35 00
1-in. x 13-in. and up	35 00
1¼, 1½ and 2-in.	32 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	20 00	22 00
No. 2, 1¼, 1½, 2-in.	17 00	21 00

Mill Culls

Mill run culls, 1-in.		16 00
1, 1¼, 1½ and 2-in.		18 00
No. 2	14 00	15 00

Lath

No. 1, 32-in. pine	1 50
No. 2, 48-in. pine	3 75
No. 3, 48-in. pine	3 00
No. 1, 48-in. pine	4 25
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft	8 ft	10 ft	14x16 ft
2 x 4	14 00	17 00	20 50	18 50
2 x 6	16 50	17 00	20 50	18 50
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4 8-14 16	20 50
2 x 4 10 18-20	20 50
2 x 6, 8 to 16	22 50
2 x 8, 8 to 16	20 00
	20 50

No. 1 Common Boards

4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Dimensions, S. 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	20 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
	27 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine mixed widths	20 00
No. 4 common pine, mixed widths	14 50
No. 5 common pine, mixed widths	10 00

SHINGLES

XXX B. C. Cedar	$2 90
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 50
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00

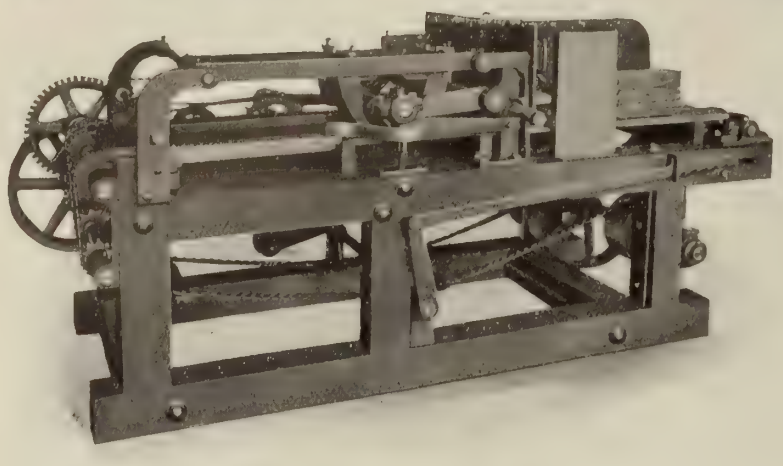
(Continued on page 68)

DISSTON
Quality Tells

The loyalty of our army of skilled mechanics is embodied in the quality of the goods they make, and this in the past Seventy-two Years engendered a like loyalty to the DISSTON BRAND on the part of the great multitude of saw, tool and file users.

HENRY DISSTON & SONS
INCORPORATED
Keystone Saw, Tool, Steel, and File Works
PHILADELPHIA, PA.

A Pair of Useful Machines

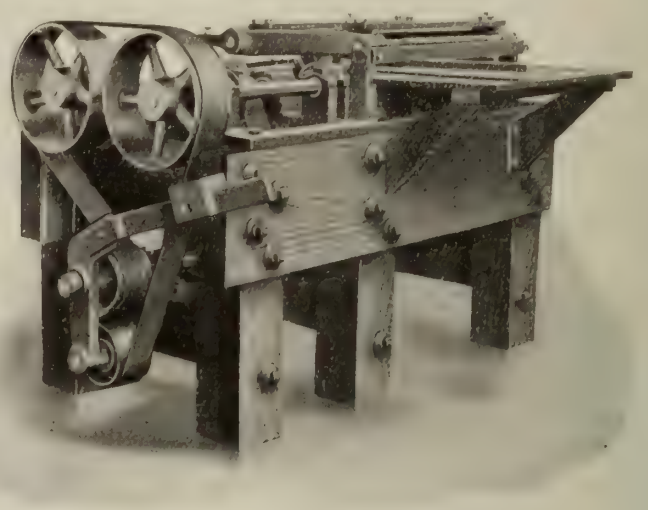


NO. 420 RECESSING MACHINE

Our No. 420 Automatic Recessing Machine will cut recesses with safety and dispatch.

Two boys will turn out more work than four men can accomplish of a similar kind on the ordinary cutter head most often used for the purpose. Will handle stock 20 inches wide by 30 inches long composed of one or more pieces, only occupies a floor space of 2 ft. 11 in. by 6 ft. 6 in.

This No. 50 lath edger will enable you to use cheaper labor, less men per thousand lath and get more lath out of every slab handled besides getting number one lath out of thin slabs that would be worthless using any other system. The saws are spaced to rip one and one half inches wide. The first saw cuts one and one half inches from the guide so there is no waste on straight edge stock.



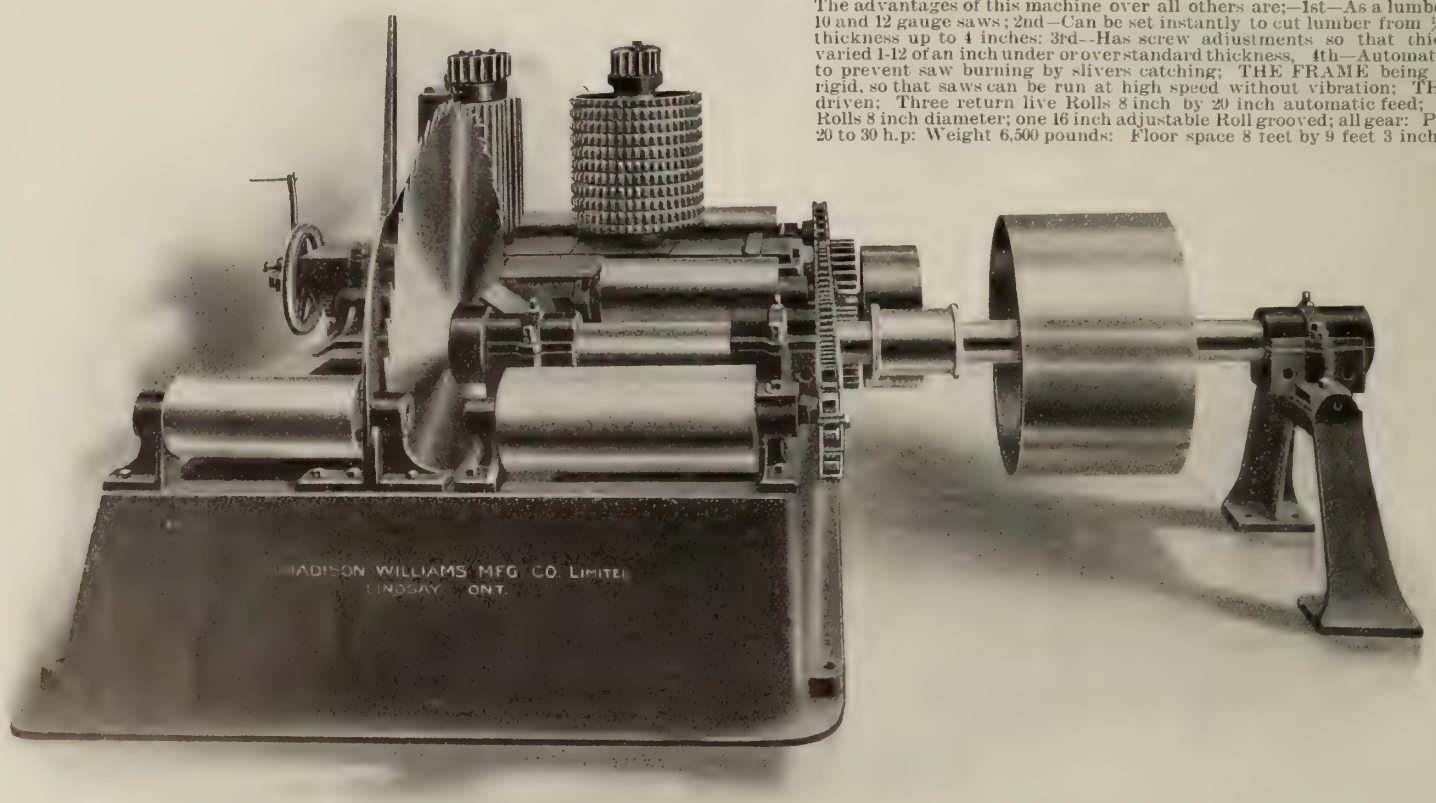
No. 5 LATH EDGER

Send for complete catalogue of box machinery, resaw and saw mill machinery.

Mereen-Johnson Machine Company - Minneapolis, Minn.

JOHNSTON RE-SAW is a Lumber Saver and a Money Maker

The advantages of this machine over all others are;—1st—As a lumber saver using 10 and 12 gauge saws; 2nd—Can be set instantly to cut lumber from ½ inch to any thickness up to 4 inches: 3rd--Has screw adjustments so that thickness can be varied 1-12 of an inch under or over standard thickness, 4th—Automatic adjustment to prevent saw burning by slivers catching; THE FRAME being heavy is very rigid, so that saws can be run at high speed without vibration; THREE POINT driven; Three return live Rolls 8 inch by 20 inch automatic feed; Two grooved Rolls 8 inch diameter; one 16 inch adjustable Roll grooved; all gear: Power required 20 to 30 h.p: Weight 6,500 pounds: Floor space 8 feet by 9 feet 3 inches:



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HEATERS, STACKS, RETORTS, TANKS

We cater specially to the lumbering industries

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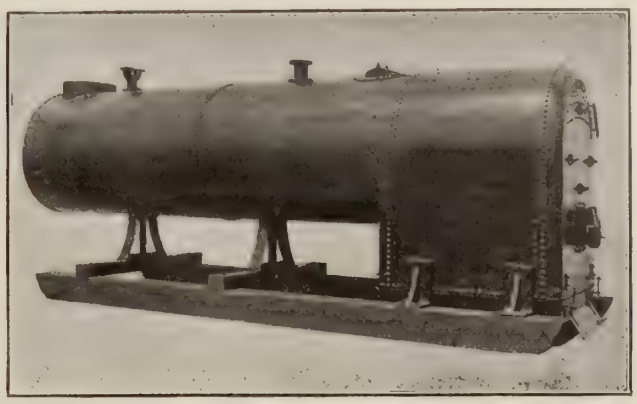

Locomotive Boiler on Skids

International

Preparations for Horses are all sold on a Spot Cash Guarantee

Let us figure on furnishing you the following supplies for the coming season.

International Stock Food
We guarantee that your horses will do more work and keep in better order on less feed if they get International regularly.

International Silver Pine Healing Oil
Especially recommended for Sores, Bruises, Kicks, Inflammation and all flesh wounds.

International Worm Powder
Will quickly expel all kinds of worms.

International Distemper Cure
For Coughs, Colds, and Distemper.

International Colic Cure
Guaranteed to cure Colic in ten minutes.

International Compound Absorbent
Greatest Curb cure on Earth.

International Gall Cure
Cures while horses work or rest.

International Foot Remedy
Cures Foot diseases, keeps the hoof soft, elastic and tough

International Harness Soap
Gives new life to old harness.

All our goods are guaranteed to give satisfaction.

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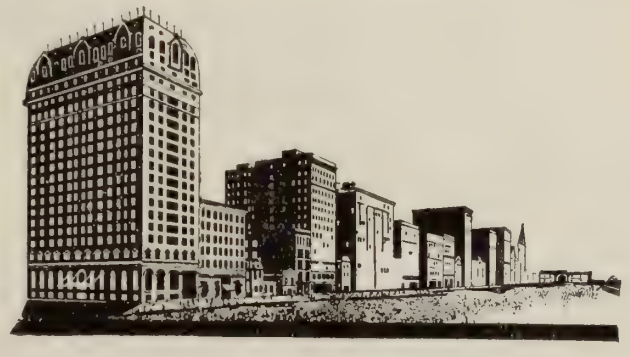
International Stock Food Co., Limited

Toronto, Ont.



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When you know definitely, clearly and in detail just who is in the market for your product, you are in a fair way to land the order.

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May we submit our proposition?

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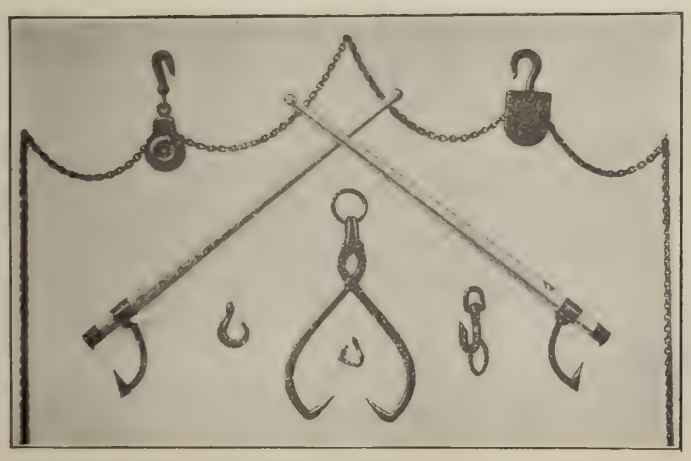

When ordering from your Jobber specify

Pink's Lumbering Tools

and if they cannot supply them order direct, and you will get the best tool made

The Thomas Pink Co. Limited

PEMBROKE, Ont., Canada

Manufacturers of the best line of Lumbering Tools in Canada

CURRENT LUMBER PRICES—Continued

No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00
No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	46 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	30 00
No. 2 Barn 1 x 10	32 00
No. 3 Barn 1 x 6 and 8	23 00
No. 3 Barn 1 x 10	25 00
Box 1 x 6 and up	22 00
Box 1 x 10	23 00
Box 1 x 12	25 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

White Ash		
1st and 2nd, 1 inch	40 00	42 00
1¼ to 2 inch	44 00	46 00
2½ to 4 inch	48 00	54 00
Strips	22 00	24 00
Common and culls	14 00	22 00
Black and Brown		
1st and 2nd, 6 inch up	40 00	42 00
Common good culls	14 00	20 00
1st and 2nd 6 inch and up, red	40 00	42 00
1st & 2nd, white, 6 in. & up	30 00	32 00
Common and good culls	16 00	18 00
Elm		
1st and 2nd, rock, 6 in. and up	34 00	38 00
Common and culls	16 00	20 00
1st and 2nd, soft, 6 in. and up	28 00	32 00
Common and culls	13 00	18 00
Maple		
1st and 2nd hand	26 00	28 00
Common and culls	14 00	22 00
1st and 2nd, soft	26 00	28 00
Common and culls	14 00	22 00

BOSTON, MASS.

White pine uppers, 1 to 2 in.	$99 00	100 00
Selects, 1 to 2 inch		90 00
Fine common, 1 in.		72 00
Fine common, 1¼ to 2 in.	74 00	75 00
No. 1 Cuts 1 in.		45 00
No. 1 Cuts 1¼ to 2 in.	58 00	60 00
No. 2 Cuts, 1 in.	35 00	37 00
No. 2 Cuts, 1¼ to 2 in.	45 00	48 00
Barn Boards, No. 1, 1 x 12	50 00	52 00
No. 1, 1 x 10		38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12		43 00
No. 2, 1 x 10	35 00	37 00
No. 2, 1 x 8	34 00	35 00
No. 3, 1 x 12	33 00	34 00
No. 3, 1 x 10,	28 00	29 00
No. 3, 1 x 8	28 00	29 00
Canadian spruce boards	23 00	24 00
Spruce, 10 & 12 in. dimension	26 00	27 00
Spruce, 9 in. and under "		25 00
10 and 12 in. random lengths, 10 ft. and up	24 00	25 00
2 x 2, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3x4 random lengths, 10 feet and up	20 00	22 00
All other random lengths, 7" and under, 10 ft. and up	21 00	22 00
5 inches and up merchantable boards, 8 ft. and up, p 1s		19 00
Vermont spruce boards, matched	22 00	23 00
1 x 2 and 1 x 3 furring, p 1 s clipped and bundled	19 00	21 00
1⅝-in. spruce laths	4 00	4 10
1½-in. spruce laths		3 60
New Brunswick Cedar Shingles		
Extras	$3 60	$3 75
Clears	3 25	3 40
Second clears		2 75
Clear whites		2 30
Extra 1s (Clear whites out)	1 45	2 25
Extra 1s (Clear whites in)	1 50	1 60
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 50	4 00
Red Cedar Eurekas, 18-inch. butts to 2-in.		4 20
Red Cedar Perfection, 5 butts to 2¼		4 75
Washington 16-in. 5 butts to 2-in. extra red cedar		3 50

THE ONLY LOG-LOADER

"IT HANDLES ANY SIZE LOGS!"

That allows empties to pass through on the same track without jacking up the loader on spuds.

The McGIFFERT Steam LOG LOADER

It is self-propelling, moves and spots its own cars, dispensing with the services of a road engine.

It cuts the cost of logging some 66⅔: We would like to send you a book of facsimile letters that PROVE this.

A beautifully illustrated book, fully describing the working of the McGiffert and the immense savings it makes possible, awaits your request for **"CATALOGUE M."**

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It will pay you to equip your Tram Cars with our special

Charcoal Chilled Cast Iron Wheels

We will fit these to your old axles, or furnish new axles and wheels separately.

Price, quality and service considered, we can save you time and money.

Further particulars on request.

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The Canada Iron Corporation Limited

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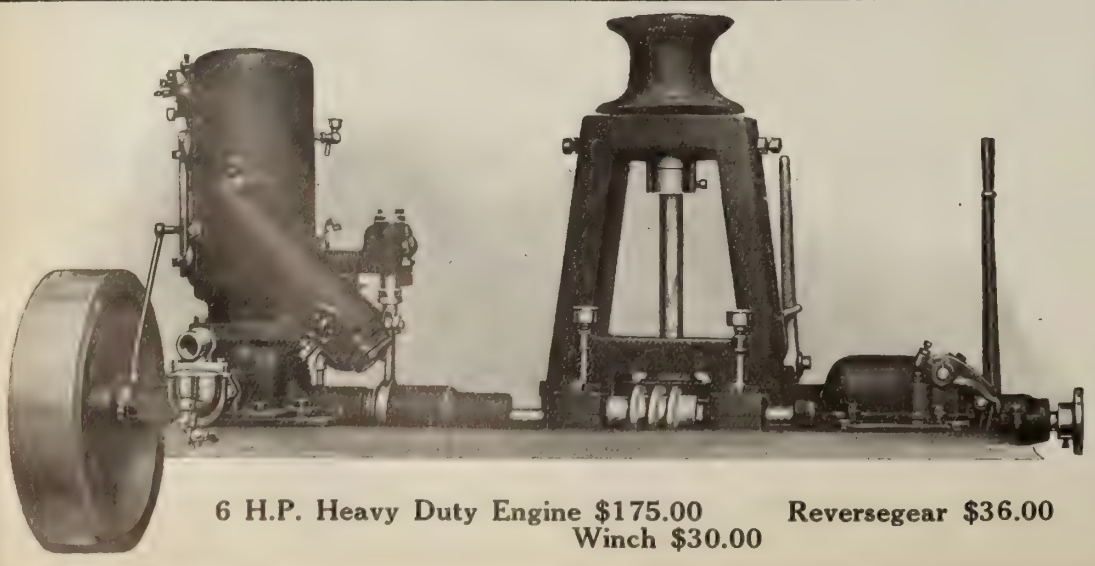

6 H.P. Heavy Duty Engine $175.00 Reversegear $36.00
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will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25′ punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. Machinery $205.00. Complete punts $375.00. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 H.P.

Adams Launch and Engine Co.
Penetang, Ont.

JAMES D. LACEY WOOD BEAL VICTOR THRANE

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TIMBER LAND FACTORS and TIMBER VALUATORS

We submit **Detailed** estimates with **Topographical** maps of all **Timber Properties** offered through our house Representations based upon our own **Expert** cruisers and loggers, whose **Integrity** and **Experience** have been thoroughly tested over a period of many years.
We solicit correspondence with **British Columbia** timber owners and prospective purchaser

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MANUFACTURERS AND BUILDERS OF

CIRCULAR AND CYLINDER SAWS
STAVE HEADING AND BARREL MACHINERY
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For the Manufacture of the Following

STAVES	HEADING
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COMPLETE PLANTS
FOR THE MANUFACTURE OF
BARRELS, KEGS, STAVES AND HEADING
OUR SPECIALTY.
FOR PRICES AND FURTHER PARTICULARS, ADDRESS
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An Up-to-date Cross-cutting Machine

Made only by— **Butterworth & Lowe**
Send for Descriptive Price List. 221 Huron Street, Grand Rapids, Mich.

HEISLER GEARED LOCOMOTIVES

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

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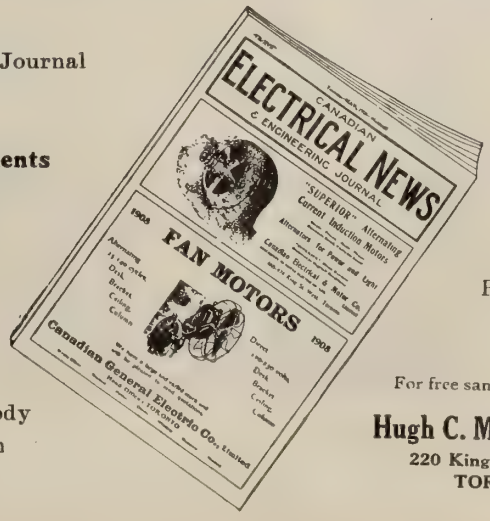

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Do you want a copy of our No. 34 Moulder Book?

It's a high class piece of advertising telling about a high class piece of wood-working machinery. We venture the assertion that the American No. 34 has no equal; but its reputation will not rest on our assertion, but rather on your judgment,—the judgment of the trade.

We leave it to you. Get the book.

It's a *fast feed machine*—It resembles our No. 77 Planer and Matcher in that respect. It will manufacture siding at 150 or more feet per minute, and the heads are equipped with jointers for that purpose. It has every convenience and adjustment that the idea, inside moulder, suggests, and some new ones that you have never seen before.

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Men with the Quality Viewpoint buy Berlin High-Efficiency Matchers

The Road to Bigger Profits Leads Straight to

Berlin High-Efficiency Matchers

When the announcement was made that the Berlin engineers had designed a new fast feed matcher, the news spread like wildfire. Millmen began visiting neighboring mills to see the new matcher running. They asked, "What better machines could we expect than the Berlins we are using?" The answer is easy.

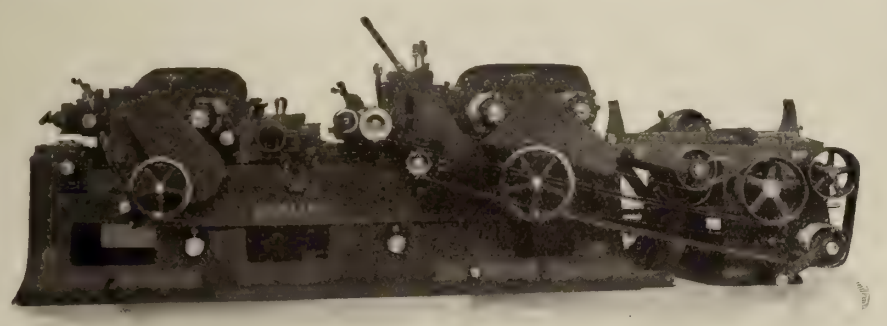
Those were the best we knew how to build then. But conditions have changed. Recognizing the need of a more efficient tool, our engineers evolved the new High-Efficiency Matcher. They have gone further than to meet the demand—they have anticipated—and have incorporated more automatic features in this matcher than were thought of by the most exacting mill men.

The man who sees the new matcher will not be disappointed. He'll see a machine that turns out a better grade of lumber and more of it at less cost than any machine on the market—a machine that makes the most difficult patterns true to standard—patterns that match with those made a year ago. He'll see a machine that turns out flooring, ceiling, partition and mouldings at 200, 250 or more feet a minute. In fact, he'll see a machine whose capacity is limited only by the feeder or special feeding device.

HIGH GRADE WORK

These new High Efficiency Matchers are replacing 2 and 3 of the old style matchers and are producing a higher grade of work. In the mills that watch grades and manufacturing costs they will tell you this new Berlin is raising grades 10% to 30% and reducing manufacturing costs 40% to 60%. We can refer you to firms where they have paid for themselves in a year. Sounds like an investment. Doesn't it? And it certainly is.

These new machines are insurance against mismanufactured stock. You'll find our side heads and profile attachment more accurate and efficient than any ever made. Mill men will tell you that tongue and groove work and outline patterns are up to standard—not just the first few days—but all the time. Its the milled high-speed steel bits that keep them up to standard.



An illustrated circular of the several models of this machine will be sent upon request

SMALL UPKEEP EXPENSE

The enthusiastic owner of one of these new Berlin matchers will tell you, that despite the terrific speed at which he has been running this big machine, upkeep expense amounts to practically nothing. The gravity tighteners, which allow belts to go back to their normal condition after heavy cuts, reduce belt bills 50% There are fewer gears on this machine than any matcher built, there being but five. The heads are one solid forging, and so strong the heaviest cut won't spring them. Pyts steel thin knives and milled high speed steel bits reduce knife costs. Gravity belt tighteners give the maximum pull for the minimum power consumed.

Less friction on the wearing parts means less power required. You'll be surprised at the small amount of upkeep expense there is on one of the Berlin matchers.

LABOR-SAVING DEVICES

The Berlin engineers, in designing this machine, had in mind ease of operation, as well as stability. Many automatic devices lessen the labor of the operator, giving him more time to grade stock.

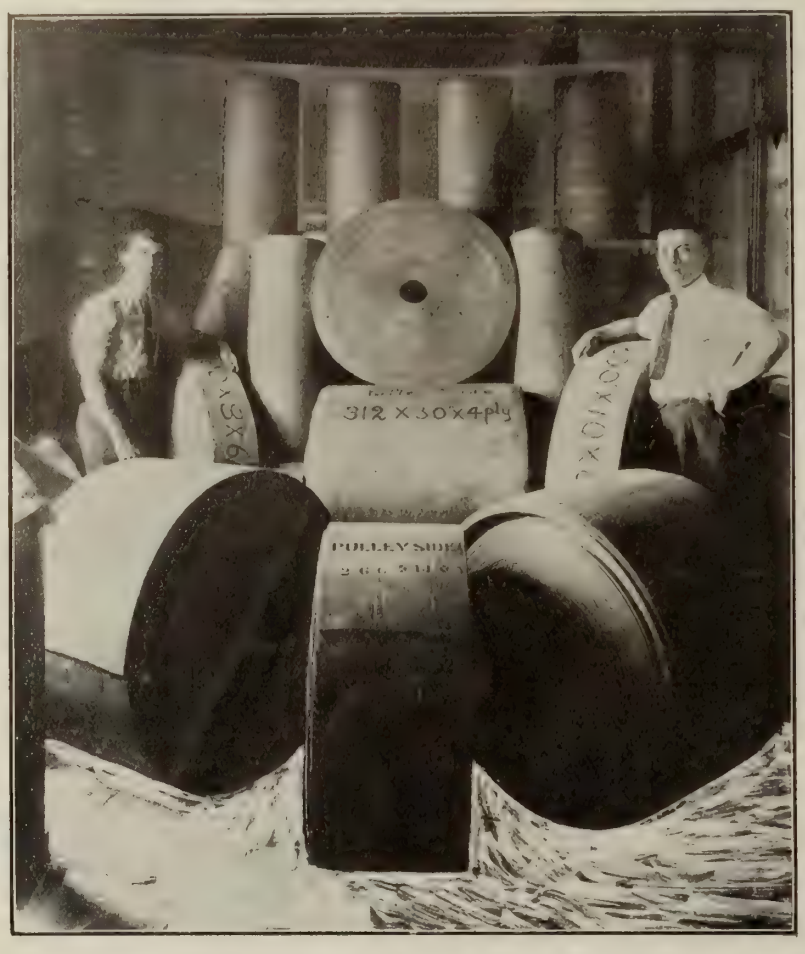
The low bed-line—accessibility of parts—automatic boxes adjusting with wear in the cutter and side head journals—sight feed oiling system—encasing of the working mechanism to prevent accidents—and the many quick easy adjustments make the Berlin High Efficiency Matchers the best ever built.

Write for our latest circular giving detailed information,

THE BERLIN MACHINE WORKS, Ltd., Hamilton, Ont.

Largest Manufacturers of Wood Working Machinery in the World

United States Plant: Beloit, Wisconsin



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A recent test made by the well-known Testing Engineers, Messrs. Kirkaldy & Sons, London, England, gave the following breaking strain:

6″ x 4 ply broke at 13,000 lbs.

or

9,000 lbs. per Square Inch.

Vi-Balata Belting is absolutely water-proof and is not in the least affected by extremes of temperature. Best possible results guaranteed.

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Market and Louise Sts., WINNIPEG, MAN. - - 115-125 Adelaide St. West, TORONTO

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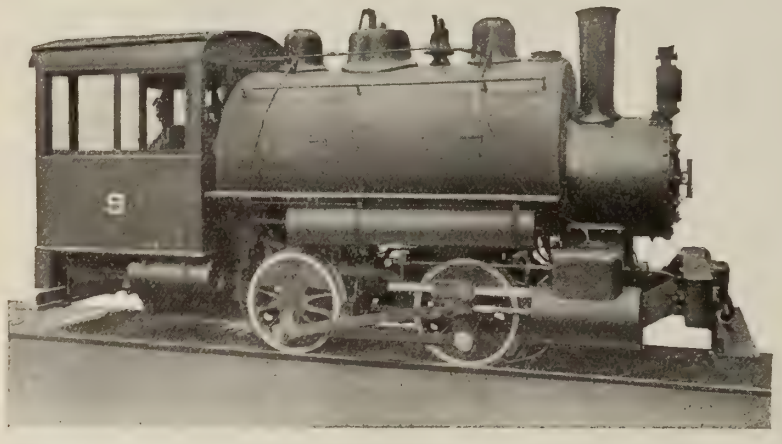
FOR BURNING COAL, WOOD OR OIL



Our locomotives are not built for one job only. They are built to last for years in the hardest service with a minimum expense for upkeep. This is the only proper way to build them.

Facility for making repairs when parts wear out was carefully considered in the design of our standard locomotives. Every detail is made with a view to securing the greatest possible reduction in the expense of repairs. Interchangeability reduces the time the locomotive is idle when repairs are necessary, as like parts will fit any other locomotive of the same size and design.

Consider the reduction in your profits when your locomotives are waiting for repairs.

Interchangeable parts, sure to fit, are kept in stock at all times and can be shipped at short notice.

MONTREAL LOCOMOTIVE WORKS

Dominion Express Building, MONTREAL, CANADA

Makes It's Mark Vivid and Lasting

Marks that remain vivid and wear like iron are a real satisfaction to the man who handles lumber. The metallic pigments, like graphite, of DIXON'S LUMBER CRAYONS offer marvelous resistance to all kinds of weather conditions. Their marks are often visible after six months of severe exposure to sun and storms.

DIXON'S LUMBER CRAYONS

have always remained the recognized standard because of their one, uniform and dependable quality; their convenient and uniform shape and size and because of the careful selection of materials used in their manufacture. DIXON'S LUMBER CRAYONS are made in nineteen grades and colors, including black (six grades), red (two grades), blue (two grades), green, white, yellow, brown, terra cotta, violet, pink and orange. Some are made to fill particular needs—let us tell you more about them. Get acquainted.

Write for lithographed booklet No. 239, illustrated in colors.

Joseph Dixon Crucible Company
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Forester and Surveyor

Mapping and Surveying of Wild Lands
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(Formerly forestry manager of the Appleton & Sewall Co.)

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Wear Like Iron

WE tan the leather these larrigans are made from and know they will stand all kinds of wet and rough usage when properly cared for. We put a counter stiffener in our larrigans and sew it in with the leg when soled and heeled—a very durable feature in our goods.

Next time you buy larrigans see that you ask for **"John Bull."**

R. M. Beal Leather Co.
Limited
LINDSAY, Ontario

Not altogether what we say but what users say

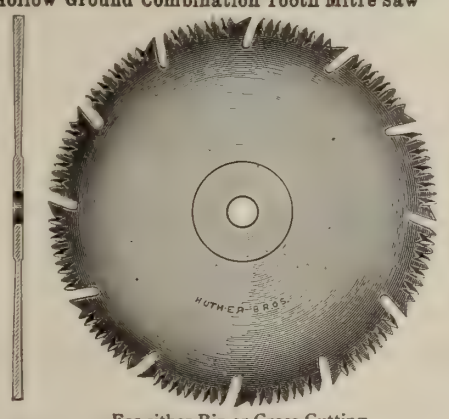
"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

HUTHER BROS.

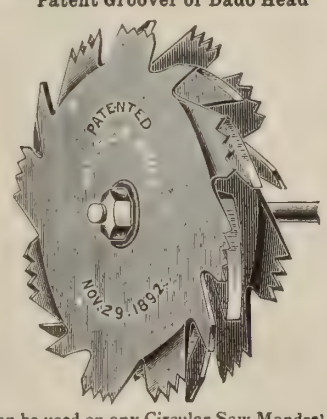
Hollow Ground Combination Tooth Mitre Saw



For either Rip or Cross Cutting

Will cut equally as smooth in either Ripping, Cross-cutting or cutting at an angle of 45 degrees, with grain of wood.

Patent Groover or Dado Head



Can be used on any Circular Saw Mandrel

For cutting any width groove from 1/8" to 2" wide. Will cut either with or across the grain (Sent on approval).

Allow us to quote Prices on Saws for any special work that you wish to do.

HUTHER BROS. SAW MFG. CO., Inc., ROCHESTER, N. Y.

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Kelley Island Lime—(Lighthouse Brand)

Burned with WOOD, from selected Ohio bottom Rock, and packed fresh from the Kilns, in new, tight, double-headed barrels.

Can also ship you in Mixed Carloads

Hard Wall Plaster, Wood Fibre Plaster, Hydrated Lime, Mortar Colors, Waterproofing.

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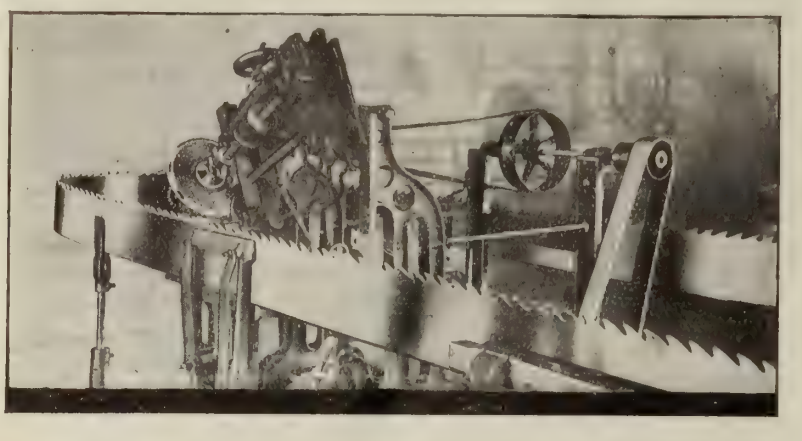
Wire Us Your Orders for Prompt Shipment



An Aloxite Saw Gummer Lasts 8 Months — Gums 1225 Saws

IN an Indiana mill that cuts 20,000 feet of hardwood a day, a 12 inch Aloxite wheel gums a 15 gauge saw, 47 feet long in 26 minutes—going around it twice. One of these wheels lasted 8 months—put 1,225 saws in perfect condition before wearing out. The best of competing wheels takes from 40 to 60 minutes to put the same saw in shape and doesn't last half as long. The boss filer of the mill says Aloxite wheels cut wonderfully fast and can be forced to the limit.

This is the kind of wheel service your filers should be getting—they will if they order Aloxite wheels

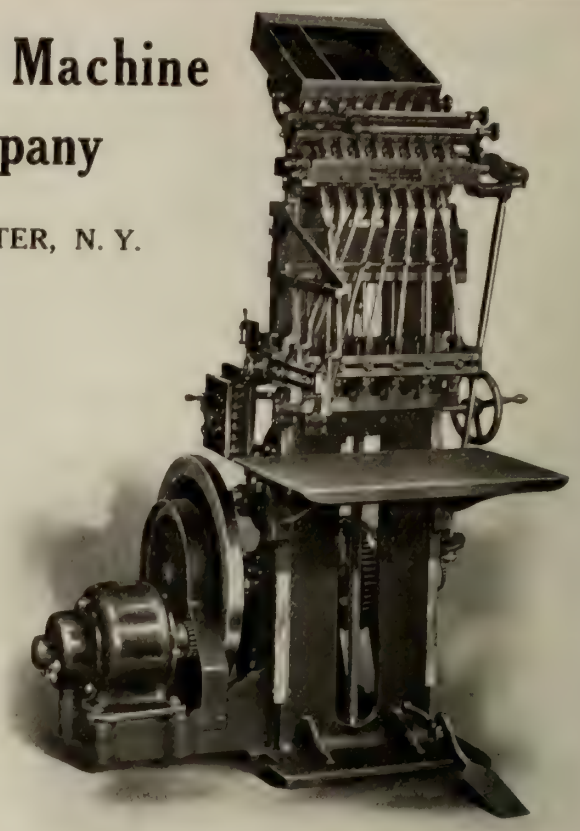
LET US SEND YOU A TRIAL WHEEL TO SHOW YOU JUST WHAT ALOXITE WILL DO

The Carborundum Co.

Niagara Falls, N.Y.

Morgan Machine Company

ROCHESTER, N. Y.



Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.

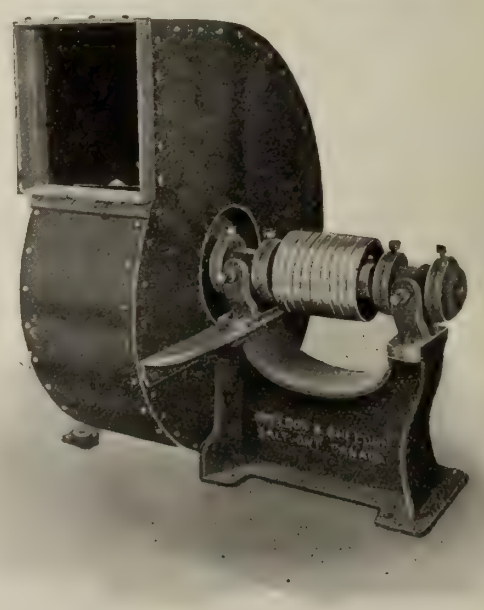
Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

Morgan Machine Company

ROCHESTER, N.Y.

Sheldon Planing Mill Exhausters

THE FANS THAT ARE REVOLUTIONIZING THE SHAVING EXHAUST BUSINESS



They will handle wet or dry, long or short shavings and sawdust, and will do this work with a guaranteed reduction in speed of from 25% to 40% less, also with a power consumption of from 20% to 35% less than any other Exhaust Fan.

A card will bring you Illustrated Catalog

Sheldons Limited - Galt, Ontario

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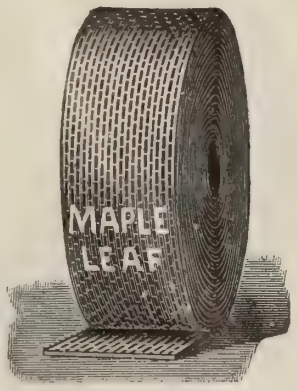
For Every Requirement

We are specialists in the manufacture of wire rope. We can ship from stock any length or size of the wire ropes usually supplied and can manufacture specially a rope exactly suitable for your requirements. Perhaps you are having wire rope troubles—if so—drop us a line advising us your requirements and we will be pleased to make suggestions as to the class and style of rope you should use. We have had years of experience—and should know.

The Dominion WIRE ROPE Co., Limited
MONTREAL
General Supply Company of Canada Ltd.—Winnipeg Agents

MAPLE LEAF BELTING

Strong
Waterproof
True
Running



For
Indoor or
Outdoor
Work

¶ Maple Leaf is the most economic and efficient belting for power transmission and conveying, etc.

¶ It costs only half as much as leather and 25 per cent less than good rubber belting.

Write for sample and prices to the sole manufacturers

DOMINION BELTING CO.
HAMILTON, CANADA

We Make a Specialty of Filling Orders

FOR

CAMP SUPPLIES

OF

Groceries and Provisions

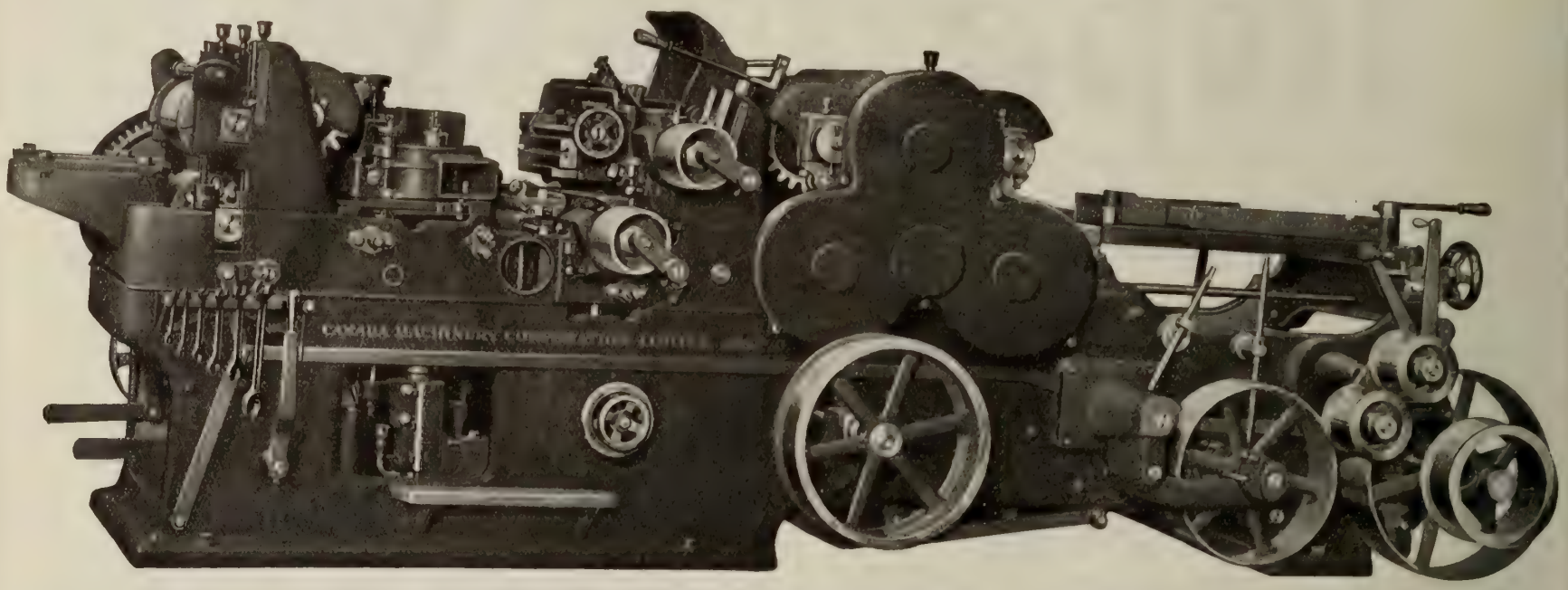
RIGHT PRICES QUALITY GUARANTEED PROMPT SHIPMENT

H. P. ECKARDT & COMPANY
WHOLESALE GROCERS
Cor. Front and Scott Sts. - - TORONTO

No. 122 MATCHER

C.M.C.

No. 122 MATCHER



C.M.C. No. 122 Heavy Duty Fast Feed Planer and Matcher

CYLINDERS both top and bottom are of the round type equipped throughout with high speed knives.

SIDE HEADS either of the round type or of the Shimer pattern can be supplied as desired.

FEED consists of six 12 inch rolls under spring tension driven by accurately machine cut gears carefully guarded.

ALL DRIVES are either by belt or gears no chains being used to give constant trouble.

BELTS are all long and driven from a self contained counter shaft attached to the main frame, and are all tightened by one lever.

WORKMANSHIP is of the highest class.

PERFECT WORK is guaranteed at a speed of 200 feet per minute.

PROFILING ATTACHMENT can be fitted at the delivery end of a machine for making drop siding, casings, base board, etc.

JOINTING DEVICE can be supplied for truing irregular surfaces.

Full Details with Bulletins and Prices Supplied on Application

We Make the Most Complete Line of Wood-Working Machinery in Canada

Canada Machinery Corporation, Limited

Galt, Ontario

Wire Rope

Special Alligator Ropes with proper attachments

Saw Carriage Ropes — Haulage Ropes

Smoke Stack Stays, etc., etc.

Wire Rope Fittings — Wire Rope Grease

The B. Greening Wire Co.,
Limited

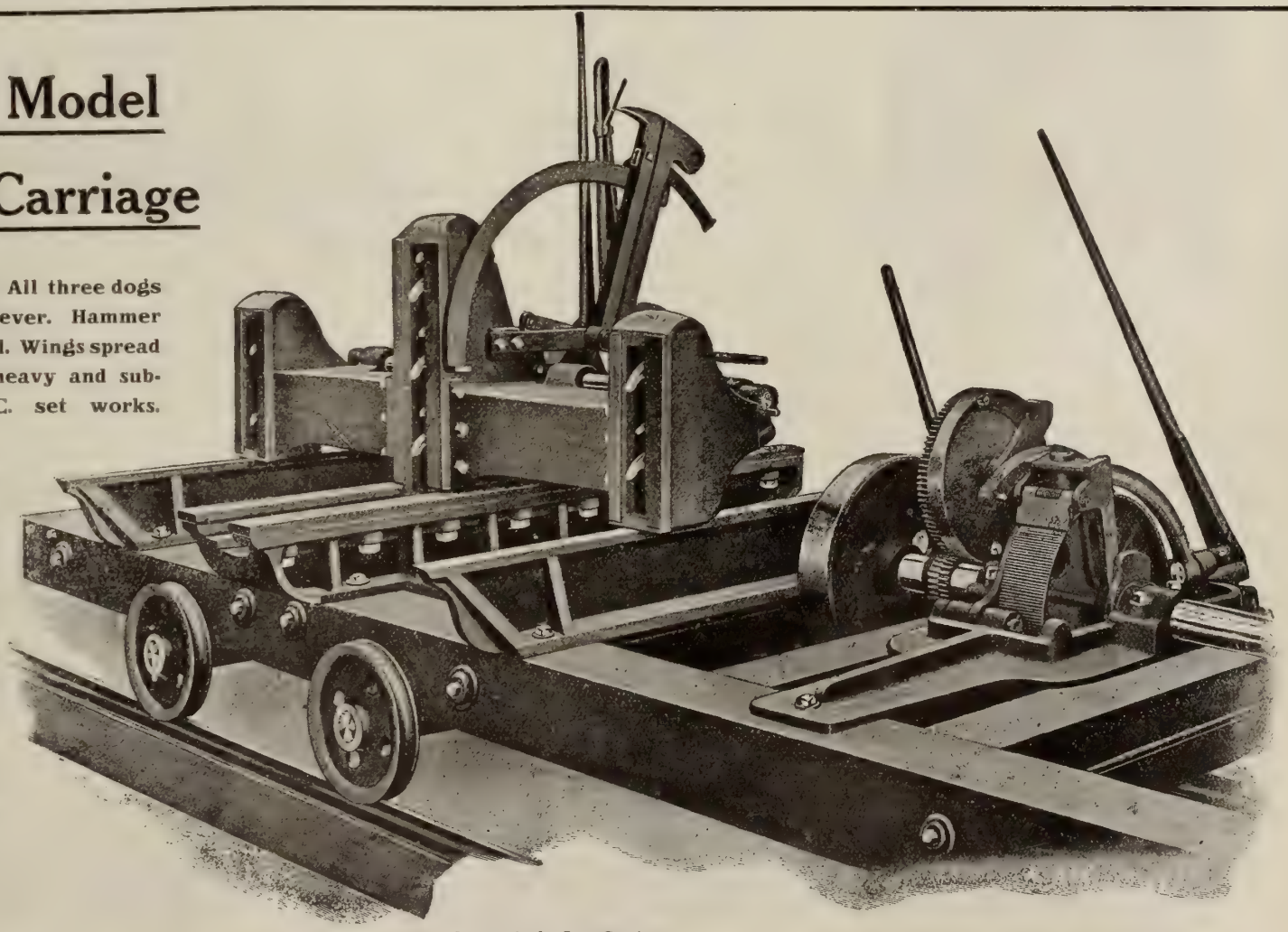
Hamilton, Ont. **Montreal, Que.**

Mowry's Model Saw Mill Carriage

With wing knee. All three dogs operated by one lever. Hammer dogs easily applied. Wings spread five feet. Very heavy and substantial. Style C. set works.

This is a model Saw Carriage and always a great favorite among lumbermen who appreciate the best. It is simple, easy to operate, can't be wrecked and will reduce your bill to nothing.

Where will our catalogue and literature find you?

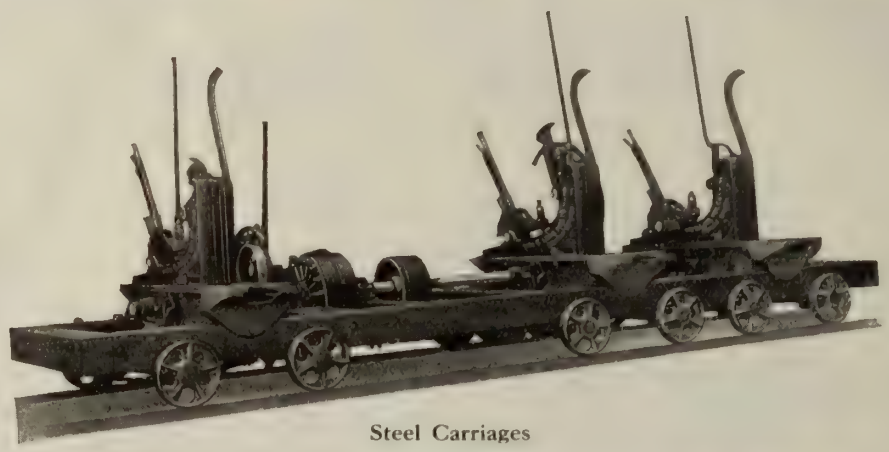


Our 46 inch Saw Carriage

MOWRY & SONS, - Gravenhurst, Ontario

Long's Quality Machinery

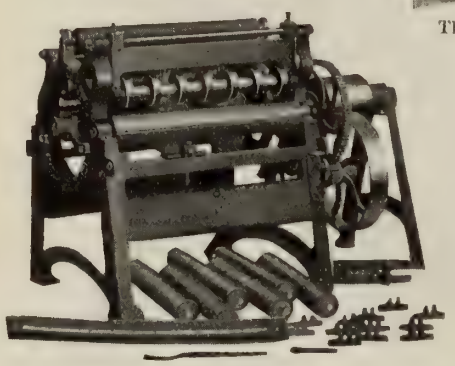
Here are a few machines which appeal to the practical millman.



Steel Carriages

This style built with 36-in., 40-in., 44-in., 48-in., 54-in., 60-in., 72-in., opening from saw line

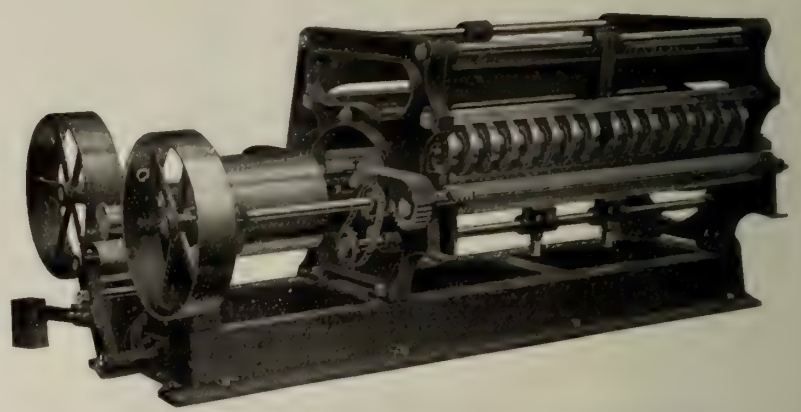
We have others. If you don't see what you want here, send us your inquiry.



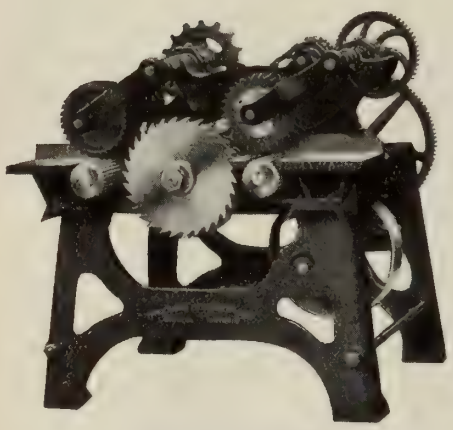
32-in. Edger

EDGERS

suitable for Sawmill of any Capacity



This style built 54-in. 60-in., 66-in., 72-in., 84-in., 96-in. between frames

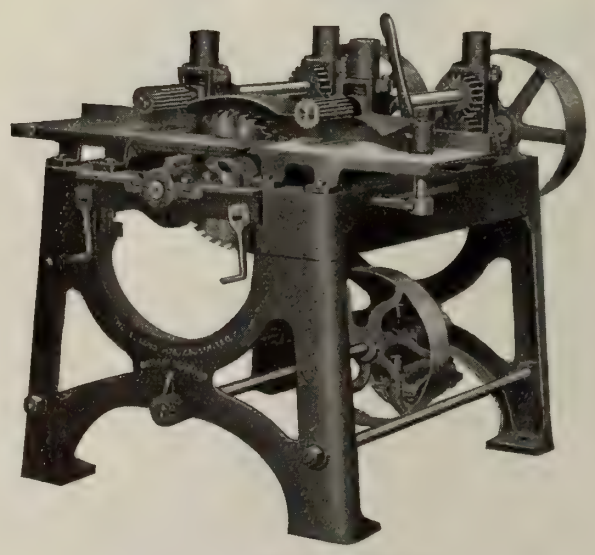


3 Saw Lath Bolter

Complete Mills of any Capacity

No. oo Portable Mill

Our entire attention is devoted to studying the needs of the sawmill trade. Our services are at your disposal.



Heavy Duty Lath Machine

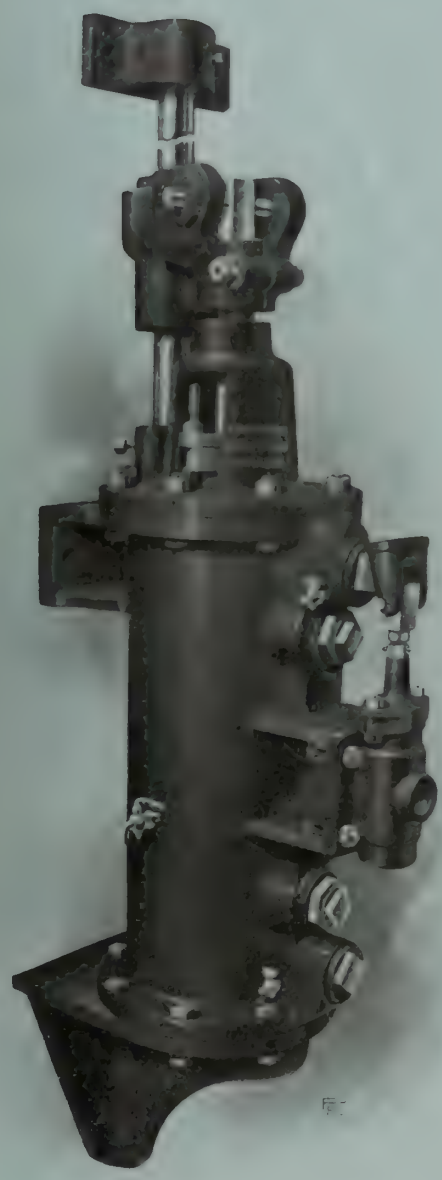
Mill plans and specifications of complete mills furnished.

The E. LONG MANUFACTURING CO., LIMITED, Orillia, Ont.

AGENCIES:

MONTREAL—Williams & Wilson, Ltd.
WINNIPEG—Stuart Machinery Co., Ltd.
EDMONTON and CALGARY—Gorman, Clancey & Grindley, Ltd.
VANCOUVER—Robert Hamilton & Co.

Get ACTION—
In Your Log Deck



The modern tendency in Sawmilling is to make every second count. We have speeded up the Waterous Log Deck to keep pace with this idea.

To do it we have re-designed and re-built practically every Machine in our Log Deck. More particularly, we have discarded the old cylinder with its leaky outside steam pipes and have replaced it by a cylinder and lever connections that answer the sawyer's movements instantaneously.

The 1912 Waterous Loaders, Kickers, Niggers, etc., not only work with a "punch" behind them but there is a snap and action in the work that makes the seconds count. It doesn't take two or three strokes of the Nigger to get the log in position for the cut. The log is placed on the Carriage without hesitation—and placed there **right.**

The new cylinder is shown in the attached cut. Steam ports are cast solid; valve gearing and valves are of strong design; a check valve regulates the exhaust to steam cushion the piston at both ends of the stroke. The valve operates by one lever, quickly, easily and on a short travel. Exhaust throttling plugs increase or diminish operating speed of the cylinder without affecing the power of the machine--this is a special feature. All wear on the rod, gland and packing is overcome by the guide bar support for the piston rod.

This cylinder is easily millwrighted, accessible, strong and convenient, and built in diameters of 8″, 10″ and 12″ is supplied on every machine of the WATEROUS LOG DECK.

Go over your Log Deck when the mill is running—do **you** make the seconds count?

Load Loaders
Cant Trips
Cant Flippers
Log Kickers
Niggers
Log Turners
Stock Lifters

More information on this topic in our Log Deck Bulletin No. 106

The Waterous Engine Works Co., Ltd.

Brantford, Canada

Branch : Winnipeg, Man. **Agency : H. B. Gilmour, Vancouver, B. C.**

$5,000,000.00

worth of mixed metals is what we market every year

PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.

Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

We solicit your patronage

HOYT METAL CO., Toronto, Canada

New York, N. Y. **London, England** **St. Louis, Mo.**

DESIGN B. L. NC 3

BATTS LIMITED

WEST TORONTO

MANUFACTURERS OF

Staved Columns

Veneered Doors

Newel Posts

Sashes - Flooring

Trim

Pine Doors and Frames

Turned Newel Posts and Balusters

Cypress Greenhouse Material

Write for our Catalogue

BATTS LIMITED

MANUFACTURERS

WEST TORONTO - ONT.

THE LEATHER BELT THAT'S KNOWN OUR "EXTRA"

THE J.C. McLAREN BELTING CO. OAK EXTRA TANNED EST 1856

MONTREAL TORONTO

WINNIPEG VANCOUVER

The J.C. McLaren Belting Co.

Limited

General Mill Supplies **MONTREAL**

H. Walters & Sons

Limited

Head Office and Factory **HULL, CANADA**

VANCOUVER, B.C.
Corner Powell and McLean Sts.

Branches:

WINNIPEG, MAN.
Corner Market and Louise Sts.

THE LARGEST FACTORY FOR LUMBERING TOOLS IN CANADA. :: :: ::

"Send for New Illustrated Catalogue"

Manufacturers of all kinds of

Saws, Axes, Axe Handles, Lumbering and Logging Tools, Machine Knives

Canada Lumberman & Wood Worker

Time is Money

The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.

STOCK BREAK

A Test Like This is possible only with a Weld Like THIS

STEEL CHAIN
made in Canada at
ST. CATHARINES, ONT.
BY
McKINNON CHAIN CO.,
BUFFALO, N.Y.

SAW MILL SUPPLIES

There is not a jobber or manufacturer, or any other person employed by either, in an official position who should miss the chance of looking over our new Catalogue on Transmission Supplies.

If you are looking for "Quality and Service" in your mill supplies we know you will be impressed with the lines shown.

Send a post card for it to-day and you will have it by return mail.

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
Steel Pulleys Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults

Montreal Toronto St. John, N.B. Winnipeg Calgary Vancouver

F. REDDAWAY & COMPANY

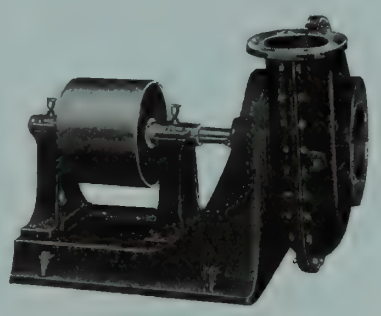
SOLE MAKERS OF

"CAMEL HAIR" "CAMEL" BRAND BELTING — TRADE MARK REG.

The Belt you will eventually use.

The Belt that will last longer, stretch less, and transmit more power than any other belt.

TORONTO - - - MONTREAL



WE MANUFACTURE
Steam and Power Pumps, Condensers, Travelling Cranes, Etc.

The Smart-Turner Machine Co., Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

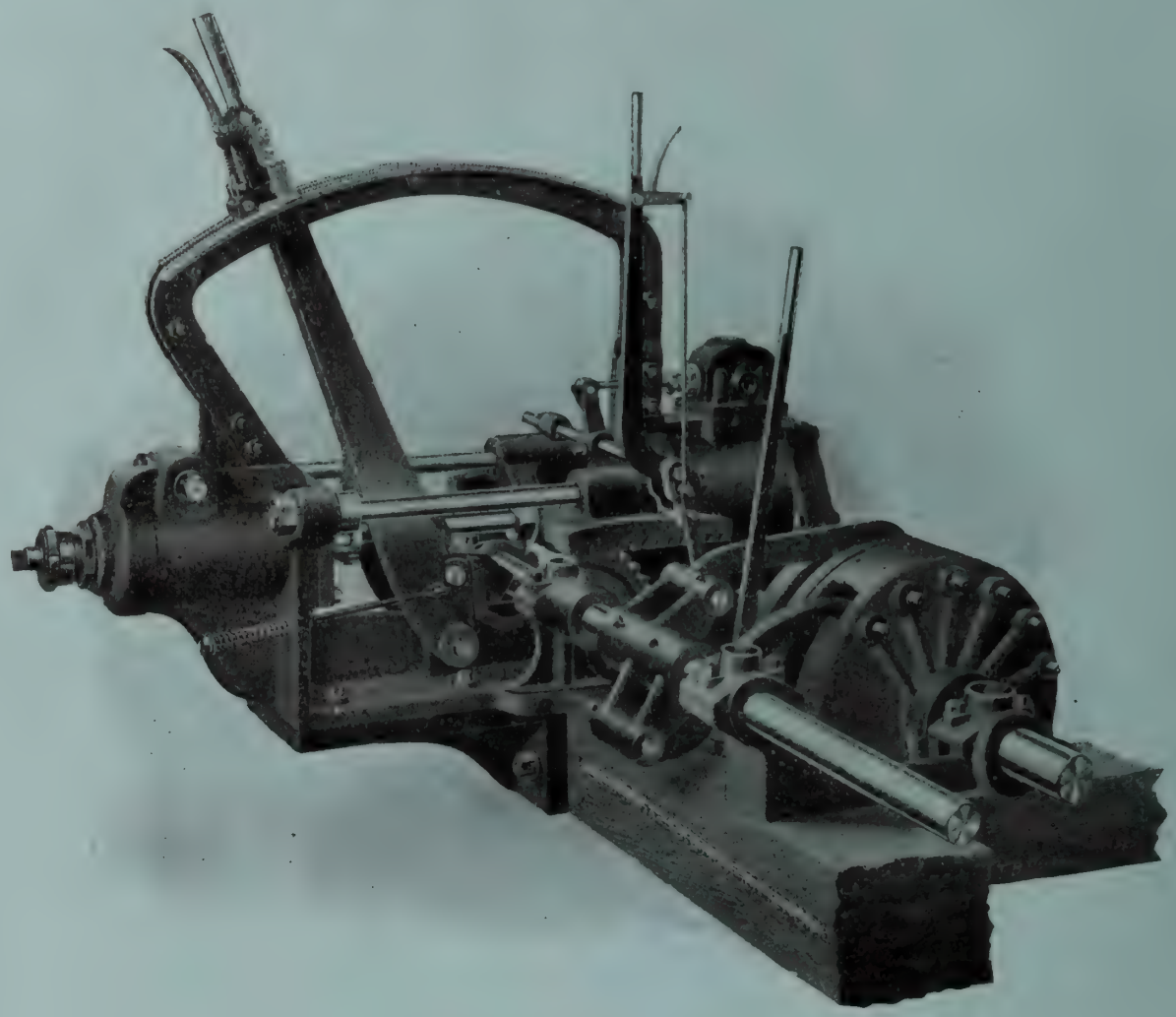
CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

Alphabetical Index to Advertisers, page 60

Did you ever really figure what it means to you to increase your cut 2,000 feet per day?



That is, increase it 2,000 feet per day without adding to your cost of sawing.

Or, in other words, what effect will it have on your profits if you can distribute your overhead charges and wages over an output 2,000 feet per day greater than it is now?

If you haven't figured it out, take your pencil and try it now.

You know how much it costs you to run your mill every day—divide that amount by the number of thousand feet per day in your present output—add 2,000 feet to your present output and divide your daily cost by that amount—and the difference between the two results represents the saving per thousand feet in your operating cost.

Then multiply that figure by your total output per season—and we think the result will surprise you, if you have never looked into this before.

This is just one of the ways in which our FOUR INCH STEAM SET WORKS will make money for you, and it will do just this because the users themselves have written us stating that they have increased their cut ***upwards*** of 2,000 feet per day.

May we send you further information about this Steam Set works?

William Hamilton Company, Limited

PETERBOROUGH - ONTARIO

RED and WHITE PINE

VIEW OF MILL PROPERTY AT CACHE BAY, ONT.

QUALITY Our Watchword

The finest pine timber in Northern Ontario and mills equipped in the most modern way enable us to turn out timber that is strictly "up to the minute." Send us your next order for

Norway or White Pine Lumber, Railroad and Structural Timbers, Flooring, Ceiling, Moulding, Siding, Cross-arms, etc.

Daily Capacity of Mill 190,000 feet of lumber, 65,000 pieces of lath, exclusive box boards and pickets.

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

JOHN GILLIES
President

DAVID GILLIES
Vice-President

J. S. GILLIES
Sec.-Treas

Established
1873

GILLIES BROS.
Limited

Mills & Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

Cedar Shingles and
Railway Ties

RED PINE, SPRUCE, HEMLOCK, CEDAR

Planing Mill, Yard & Office
MORRISTOWN, N.Y.

CAPACITY 40,000,000

New York City
Guy E. Robinson, 1123 Broadway

The
Georgian Bay Lumber Co.
Limited

Waubaushene, Ontario

Manufacturers of High Grade
Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

White Pine
Red Pine
Spruce
Lumber and Lath

Office, Castle Building 53 Queen St. Ottawa, Can.

F. N. Waldie, President. R. S. Waldie, Vice-President. W. E. Harper, Secretary.

The
Victoria Harbor Lumber Company
Limited

Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont. Head Office, 12-14 Wellington Street East, TORONTO, ONT.

There's Satisfaction in Ordering These Quality Grades of Lumber

If you're depending upon a supply of lumber you must get your orders in before the fall or you will be up against car shortage—a serious question.

Last spring it was bad enough, and even now there is a scarcity of cars—what will it be when the West begins to move this year's wheat crop?

For Fall and Winter requirements place your orders now and make sure of getting August and September shipments.

Right now we are ready to supply your every demand—at lowest market prices, in

HEMLOCK 1 x 4" and up, 1 x 6, 1 x 8, 1 x 10, 2 x 6, 2 x 8, 2 x 10

SPRUCE 1 x 4, 1 x 5, 1 x 6, 1 x 7, 1 x 8, 1 x 9 and 1 x 10

We can also fill orders, in any quantity, of **White Pine**—the finest well-watered stock obtainable. Always ready for shipment. We can dress or resaw.

☞ *Write for prices, etc.* ☜

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 1200 Claremont Ave., MONTCLAIR, N.J. — **Hope Chambers, OTTAWA, CAN., Head Office**

Timber Limits for Sale
on Georgian Bay

The undersigned offer for sale in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; Tug Scow and other Lumber Equipment, including boom chains, plows, sleighs, etc.

The Limits, part of which have recently been sold, include: 440 square miles of licensed and deeded Pine, Hemlock, Spruce, Birch and other timber. The licenses from the Ontario Government include all timbers and are not restricted for time. Government dues are as follows: Saw Logs, White Pine, $1.50 per M. ft., B.M. Saw Logs, Hemlock, Tamarac and other woods 75c. per M. ft. The timber is situated in the Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street. The Canadian Pacific, Canadian Northern and Grand Trunk Railways run through the limits, which makes some of the parcels offered for sale particularly desirable for small mill owners.

A circular giving full information, maps, terms and conditions of sale will be furnished upon application to

The Parry Sound Lumber Co., Limited

1315-20 Traders Bank Building, TORONTO, CANADA

THE trend of trade is now towards our **CUTLER** Mills, when customers want anything at **BAY** ports for water or rail delivery, and our **LUMBER** is selling itself by repeat orders from any **COMPANY** to whom we make a shipment. Our stock is **LIMITED** but we still have a goodly quantity to dispose of at prices worth while considering.

DON'T BUY TILL
YOU GET OUR
PRICES

The Eyer Lumber Co.
34 Victoria Street, Toronto
are Selling Agents

The Rideau Lumber Co., Limited
Trafalgar Building, Ottawa, Ont.

We offer a block of 1 in. Dry White Pine 6/11 ft.

Say 85%, 4/6 in. wide, Balance 7 in. and wider.

Quality---Close enough to good to satisfy most demands.

PRICE MODERATE

'RED DEER'
Hardwood Flooring

is the flooring that is manufactured expressly to supply the demand for the best. It is made by modern machinery, from carefully selected stock, and every precaution is taken throughout our entire system to make it fulfill in every particular the name we have built up for high quality flooring.

We also manufacture Hemlock, Bill Stuff, Spruce and Hardwood Lumber

We specialize in prompt shipments

The Muskoka Wood Mfg. Co., Limited
Huntsville, Ont.

Knowles & O'Neill

WHOLESALE

Lumber, Ties, Pulpwood
Etc.

COMPLETE STOCK OF
Quebec Spruce and Pine Lumber
ALWAYS ON HAND

An exceptionally nice lot of 2″ Pine, well seasoned, for sale, also 1″, 2″, 3″ Spruce, Square and Waney Spruce and Cedar.

Correspondence Solicited. Room 4, Hochelaga Bank Building **Quebec, Que.**

The Golden Lake Lumber Co.
Limited

MANUFACTURERS OF

Lumber, Lath and Shingles

Offer at LOW FIGURE for QUICK sale:

80,000′ 2 x 4 & up 6/16′ No. 1 White Pine Mill Cull
20,000′ 2 x 4 & up 6/16′ No. 2 White Pine Mill Cull
18,000′ 1 x 4 & up 6/16′ Log Run, Dead Culls out White Birch
125,000 pcs. 1½ x ⅜ x 32″ Mill Run Hemlock Lath

All of above, shipment G. T. R. from Golden Lake, Ontario

Head Office: - EGANVILLE, ONT.

JAS. PLAYFAIR D. L. WHITE

PLAYFAIR & WHITE

Manufacturers and
Wholesale Dealers

Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

Long Lumber Company
Hamilton, Canada

Our Specialty

Norway and Yellow Pine
BILLS STUFF TO ORDER

Ontario Agents for
A. Cotton's XXX B.C. Shingles
10 Cars in Transit

Cameron & Co, Limited

Manufacturers

LUMBER, LATH, SHINGLES, TIMBER, POLES and POSTS

We have for quick shipment

— DRY —

1" WHITE PINE MILL CULLS
1" " " BOX

Mill and Yard
OPEONGO, ONT.

Head Office
OTTAWA, ONT.

Send your enquiries to our Head Office

The McLennan Lumber Co., Limited

Everything in Lumber
Rough and Dressed
Wholesale and Retail

Want to Purchase

Dry Ash, Birch, Basswood and Rock Elm

ADDRESS
21 Dorchester Street West, MONTREAL

The Hurdman Lumber Co.

OTTAWA, CANADA Limited

EASTERN

Pine, Spruce, Hemlock, Hardwoods, Timber, Lath and Shingles

WESTERN

British Columbia Timber

at Lowest Prices and any Sizes.

Casey-Shaw Lumber Co.

Limited

Sudbury, Ontario

Manufacturers of

Lumber and Lath

Planing Mill Work

SAW MILLS
Long Lake, Ont. and Blezard, Ont.

GENERAL OFFICE
Sudbury, Ont.

Williams Lumber Company

Wholesale Dealers in

White and Red Pine, Spruce and Lath
ROUGH OR DRESSED

For 1 x 4 and up x 6/11 ft dressing shorts.
For 5, 6 and 8/4 x 12/16 dressing strips.
For 5, 6, and 8/4 shipping cull shorts, strips and sidings.

Write us before placing your orders

18 CENTRAL CHAMBERS - OTTAWA, ONT.

Edward Hines Lumber Co.

(BRANCH OFFICE)

Owen Sound, Ont.

All grades of

WHITE PINE

and

Norway Dimension Bill Stuffs

WHITE and RED PINE LATH

WILLIAM H. BROMLEY

Wholesale Lumber

Aux Sable River Forest Reserve Timber Produces Best Lumber in Ontario.

Every lumber dealer and consumer in Western Ontario, Buffalo, Detroit, Central New York and Montreal knows what excellent lumber is produced from Playfair & White's mills at Midland, Ont. I can offer you from that point, all sizes of White Pine and Norway Pine; any quantity of the choicest lumber in the Georgian Bay district. These mills will commence sawing about May 15th.

SPECIAL:—The best block of Basswood in Ontario, estimated 2,000,000 ft. I am prepared to offer, sawn to any size required.

Other stocks of Pine, Hemlock and Spruce at Pembroke, Ottawa and Collingwood.

Quotations promptly given and enquiries solicited

Pembroke - - Ontario

ESTABLISHED 1855

THE McGIBBON LUMBER CO.

OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

JOHN MCKERGOW, President — W. K. GRAFFTEY, Managing-Director

The Montreal Lumber Co. Limited

Wholesale Lumber

Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W

WHOLESALE DEALERS

SPRUCE

13 Foot and 16 Foot

Lath and White Cedar Shingles

CHRISTY-MOIR CO.

149 Broadway, New York City

THE **Brockville Lumber Company** LIMITED

Brockville, Ont.
Morristown, N.Y.

Wholesale and Retail

Lumber, Lath, Shingles, Bill Stuff

And all kinds of SASH FACTORY and PLANING MILL GOODS.

McLennan Timber Lands and Lumber Co. Limited

Selling Agency and Dealers in all kinds of

Timber Lands

Offices: Gazetteville, N.Y.
Quebec, 138 St. Peter St.

RAILS For Tramways, Sidings, Etc. New and Second Hand

YARD LOCOMOTIVES

John J. Gartshore

58 Front St. W., TORONTO

Hardwood Flooring

The Celebrated Diamond Brand

End Matched, Bored, Polished and Bundled

Manufactured by

SIEMON BROS., LTD.

For prices write

W. T. EAGEN

Selling Agent for Ontario and Quebec

203-4 McKinnon Bldg.

Phone M. 6316 · TORONTO

Pine Doors

That Are Right

Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

No. 3 Pine Doors

THE

Pembroke Lumber Co.

Pembroke, Ontario

A Satisfied Customer

is a powerful factor in building up your business. You will always satisfy your customers with our

Hemlock, Pine and Hardwood

because it is made from the finest timber that grows—and it is **graded right.** We are the only firms to dress and size all our Hemlock lumber. You will save money on your freight—and that helps some.

We specialize in car lots—
Write us your requirements

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

The Harris Tie & Timber Co.,

198 Sparks St., Ottawa, Ont.

Cedar Poles and Posts, Piles and Bridge Timber

Track and Switch Ties

The **North Channel Lumber Co.** Limited

Successors to SAGINAW LUMBER & SALT CO.

MANUFACTURERS OF

Pine Lumber

Saginaw, Mich. U.S.A.

Mills at Thessalon Ont.

WE Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

AUGER & SON

QUEBEC

HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.

NIAGARA FALLS, N.Y.

The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

Orillia, Ont.

R. LAIDLAW LUMBER CO. LIMITED

Toronto
Sarnia
Buffalo

Imperial Timber & Trading Co.
LIMITED
VANCOUVER, B.C.
Branch Office:
15 Cadogan Block,
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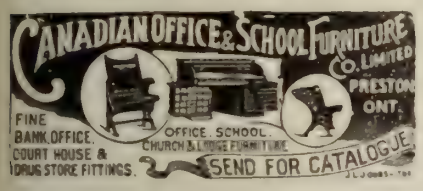
Every Description of
DOUGLAS FIR,
RED CEDAR, SPRUCE,
HEMLOCK, LARCH and
PINE LUMBER and
RED CEDAR SHINGLES

Heavy Construction Timbers a Specialty
Lengths up to 110 ft.
Try a car of our Extra Quality XXX RED CEDAR SHINGLES

Rail and Water Shipments.


CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS.
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

WANTED
100 m ft. clear hard Maple axles 4 in. x 5 in.-6ft. and 12 ft. long. Also all thicknesses Common and Better Birch.

For Sale
All grades and thicknesses of Cherry and Mahogany lumber. Also Mahogany, Circassian Walnut and Quartered White Oak veneer all thicknesses. Please let us hear from you.

WARREN ROSS LUMBER CO.
Jamestown, N. Y.

SPECIALTIES
Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie
Pine and Hardwood
Lumber
Lath and Shingles
North Tonawanda, N. Y.

"Well Bought is Half Sold"

STOCK OFFER;-

2 cars 1 x 8 and up No. 3 shop and better W. P.
3 " 6 4 No. 1 and No. 2 shop. "
2 " 6 4 sash cuts "
4 " 6 4 x 10 Select Mill Run "
4 " 2 x 6 Common and Dressing "

The above all 1911 cut F.O.B. Byng Inlet.

We can ship promptly.

Let us have the pleasure of quoting.

Graves, Bigwood & Co.
MANUFACTURERS OF
Pine and Hemlock Lumber
730 Traders Bank Building, Toronto, Ont.
Mills: Byng Inlet, Ont.

We are Buyers of
Hardwood Lumber
Pine and Spruce
Veneers (3 or more ply) Handles (all descriptions)
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Please Offer Stocks on hand.
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Saddle Tank Locomotives
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All Secondhand
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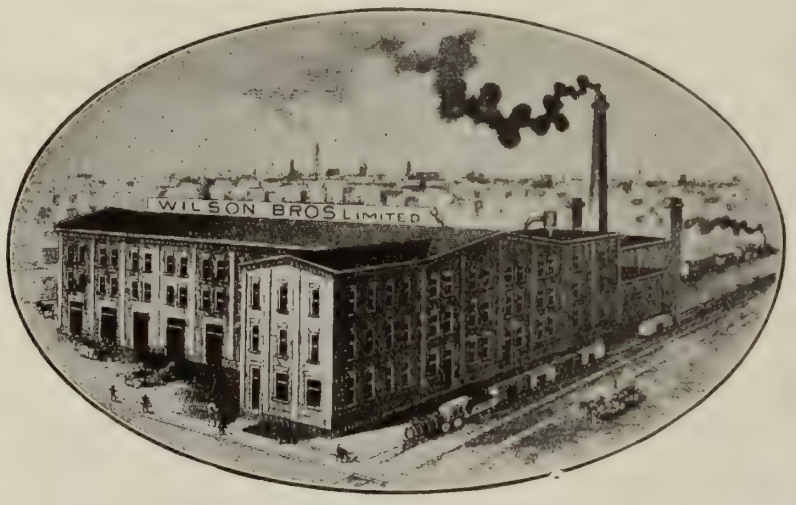
Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office: — Pacific Building, VANCOUVER, B. C.**



This illustration does not show you the largest factory in the world. But it does show you a plant that is unusually well equipped—where only experienced workmen are employed—where the highest grade materials are used—The home of

Wilson Bros., Limited, Flooring

The fact that we are one of the oldest and largest manufacturers of **Maple Flooring** in this country should give you confidence to specify and buy not only **Wilson Bros., Limited, Maple Flooring,** but also **our Beech, Birch** and **Oak Flooring. Wilson Bros., Limited, Flooring** means a carefully kiln dried and manufactured article. It is straightened, hollow-backed, bored, end matched, steel polished and bundled.

Wilson Brothers, Limited

COLLINGWOOD, ONTARIO

Wm. Milne & Son, Ltd.

Manufacturers:

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.

Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

Spanish Mill

White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel shipment only.

THE

M. BRENNEN & SONS MFG. CO.

HAMILTON, ONT.

MATCHING, DRESSING AND RE-SAWING

done in transit at lowest prices. We are equipped to dress and bore heavy Georgia Pine Timbers.

Lumber Wanted

We want 1″ Crating Spruce and 1″ Elm Crating. Write us telling what you have to offer.

Glengarry Lumber Co., Limited

Berlin, Ontario

TORONTO WHOLESALERS

Full Stock Dry Pine and Hemlock

BILLS IN PINE AND HEMLOCK

Cut to Order

NEW TELEPHONE ADELAIDE 1783

The Fesserton Timber Co., Limited

15 Toronto St., TORONTO

Mills at FESSERTON, ONT.

JOHN DONOGH & CO.

Wholesale Dealers

—DRY STOCK—

WHITE PINE—

Inch Mill Cull Sidings. 2 x 8 & 2 x 12 Common and Dressing.

SPRUCE

1 x 4-5-6-7, Common and better. Rough or Dressed.

1205 TRADERS BANK BUILDING, TORONTO

C. A. Larkin Lumber Co.

Limited

We have an exceptionally well assorted stock of Dry White Pine, but wish to call particular attention to our select Mill Run 5/4" x 4/5. 6. 8 & 10" and 6/4 x 10.

If you want silo stock, we have it; 2 x 4, 2 x 6, 2 x 8, & 2 x 10 10/16 Mill Run Norway.

Toronto :: Canada

Do You Want a Salesman?

¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

LEAK & CO., LIMITED

18 Aberdeen Chambers

TORONTO, ONT.

We are in the market for Hemlock, Spruce and Hardwoods, also No. 1, 2 3 Lath.

Send us list of anything you have to offer.

Spears & Lauder

OFFER

One Million feet, Birch, Basswood, Ash, Elm and Maple

now being cut from exceptionally choice logs.

Also during the Summer months 2½ million feet of hemlock.

LET US QUOTE YOU ON YOUR REQUIREMENTS.

Head Office: 501 Kent Bldg., - TORONTO

The

Elgie & Jarvis Lumber Co.

Limited

18 Toronto St., TORONTO, ONT.

We offer for prompt shipment,—

5 to 8 cars, 5 8 Pine or Spruce Crating.
4 to 5 cars, 1½ x 10 & 12 Selected White Pine
4 to 5 cars, 2 x 10, 10 16 No. 1 Spruce
10 to 15 cars, 1 x 10 & 12 No. 1 White Pine Mill Cull
2 cars, 2 x 4 & up, Clear and Clear Face Norway

Close prices for prompt shipment.

C. G. ANDERSON LUMBER CO.

WANTED

Mill Stocks of:—

HARDWOODS
PINE
SPRUCE
HEMLOCK

We are now buying for the 1912 trade. Write us describing Stocks you have, or will have to sell. We pay CASH.

Manning Chambers TORONTO

E. H. Heaps & Co., Ltd.

Lumber, Shingles, Doors, Mouldings, Finish, etc.

Specialties: AA1 BRAND HIGH GRADE SHINGLES
LONG FIR TIMBER

Mills at
Vancouver and Ruskin, B. C.

Head Office: 445 Hastings Street West
VANCOUVER, B.C.

For low prices and prompt shipment of
Yellow Pine Timbers
Short Leaf Finish
Chestnut --- Oak --- Ash
Cypress
New Brunswick Shingles
TRY

Fred S. Morse Lumber Co.

Box 1600 SPRINGFIELD, MASS.

J. M. Clifford & Co.

Manufacturers and Dealers in
all Kinds of

Hardwood Lumber

Poplar Basswood Cypress Elm Oak Ash Maple

We have a full stock of the above thoroughly air dried. Complete line and high grades. Prompt shipments on mixed cars.

Best Quality Uniform Grades Low Prices

GET OUR QUOTATIONS BEFORE BUYING

Detroit - - Mich.

Pine Larch

THE HALL MARK OF QUALITY

Selects
Shops
Commons
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Mouldings

Timbers
Yard Stock
Clears
and
Mouldings

The East Kootenay Lumber Co. Limited

Head Office: JAFFRAY, B.C.
Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

TURN INTO MONEY

Your slow and doubtful book accounts — HAND them to the COLLECTION DEPARTMENT of the Mercantile Agency

R. G. Dun & Company

70 Bay Street, Toronto

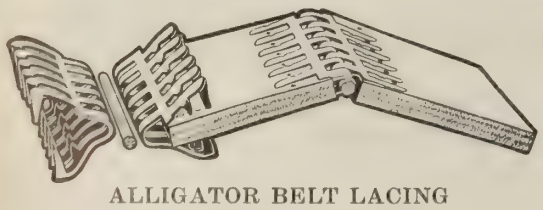
The Collection Service, which has been proved most satisfactory by all users of it, is open to Reference Book Subscribers. Subscription and Collection Rates on application.

Over Seventy Years Record of Efficiency

"LIMESTONE" Wood Split Pulleys

The Strongest Wood Pulley Made. NAILED and GLUED

We carry the largest stock of Wood Pulleys in the Country.



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Also Lukenheimer Valves, Lubricating Oils and Greases, Packings, Hose, Paints, etc.

Rush Orders Promptly Filled. Belting in Stock 1-in. to 20-in.

LARGE BELTS A SPECIALTY

Crescent Oil Co., Hamilton, Ontario

D. S. PATE LUMBER CO.

MANUFACTURERS OF

Yellow Pine

OUR SPECIALTIES:

Long Leaf Timbers and Implement Stock.
Short Leaf Finish.

Stock Exchange Bldg. - Chicago, Ill.

Lumber of Uniform Quality

Fassett Lumber Co.—General View of Saw Mill

Standard uniform quality is the Keystone of our success. If you are not acquainted with the superior merits of our lumber let us send you a sample car of

PINE, HEMLOCK SPRUCE or HARDWOOD

We have also a splendidly equipped planing mill and dress lumber to order.

LONG TIMBERS
A Specialty.

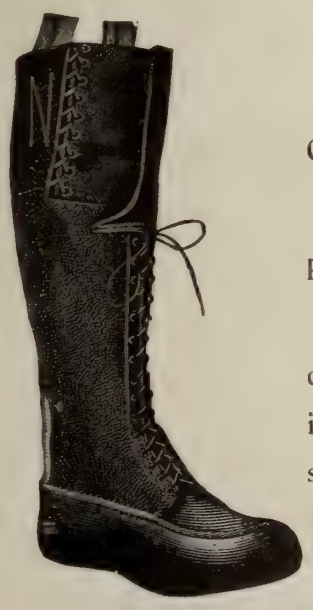
Fassett Lumber Company, Limited

FASSETT, QUEBEC

PENETANG SHOEPACKS

Gendron Penetang Shoepack Mfg. Co.

Sole Manufacturers, Penetanguishene, Ontario



TO THE TRADE

Gentlemen :—

We take this opportunity to advise you that shoepacks must necessarily advance in price in the near future, owing to the great advance in hides and leathers of all kinds.

We would ask you to place your order for fall at once, as we anticipate a larger demand than ever, and although we have made preparations for almost double the increase in our output, those of our customers who neglect placing orders, may be disappointed in shipments, besides running the risk of having to pay the advanced prices.

Yours truly,

GENDRON PENETANG SHOEPACK MFG. CO.

FOR QUICK SHIPMENT

We offer the following stock, subject to prior sale—All Dry Stock:

A few cars left of:

5/4 x 6/8/10 No. 1 and 2, Barn
6/4 x 6/8/10 No. 1 and 2, Barn
200M 1", 1½" and 2" x 12—12/16 Spruce
100M 3 x 10—10/16 Spruce
1" x 4", 5" and 6" No. 1 and 2, Barn
1½" x 4", 6' 8" x 10" No. 2, Barn and Better

From Small Logs

1", 1¼ and 2 x 4,—10/16' Spruce, rough or dressed
" " 2 x 5, " " "
" " 2 x 6, " " "
" " 2 x 7, " " "
" " 2 x 8, " " "

1, 1¼ and 2 x 10,—10 16' Spruce, rough or dressed
" " 2 x 12, " " "

A choice lot of 1" Ash and winter sawn 1" Basswood; also Birch Flooring in all grades and thicknesses.

1 x 4/up, 6/11' Mill Run Hemlock, Mill Culls out.
1 x 4/5", 12/16' " " " " " "
1 x 4/6", 12/16' " " " " " "
2 x 4/up, 12/16' " " " " " "

2 x 6, 7, 9 & 11", 12/16' Mill Run Hemlock, Mill Culls Out
3 x 8, 10 & 12", 12/16' " " " " "
Also Log Run Hemlock, Dead Culls out.
Scant 2 x 6, 8 and 10", 6/16'

Send us your inquiries. We can supply you all your wants in Pine.

DRESSED LUMBER OUR SPECIALTY

Write, wire or 'phone us for prices before placing your orders.

W. C. Edwards & Co., Limited

Ottawa, Ont.

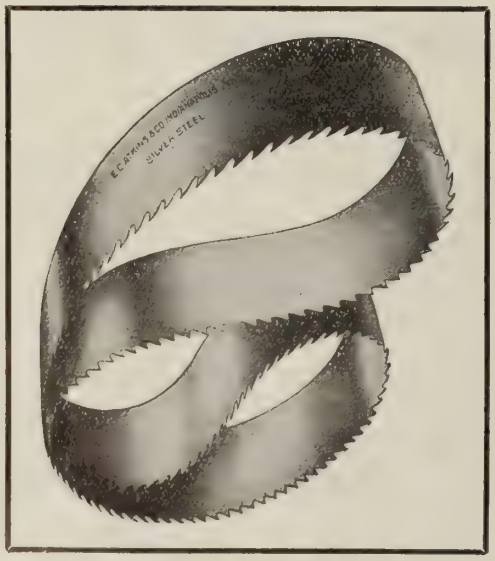
Mills at Ottawa and Rockland **Planing Mills and Factories at Ottawa**

"EVERYTHING IN LUMBER"

Why not make 1912 the most profitable saw year in your history?

ATKINS STERLING BAND SAWS

Made in Canada



THESE Saws are celebrated on account of their exceedingly tough temper and generally scientific construction. They will stand up to their work longer under the most trying conditions. You will find fewer cracks in ATKINS BAND SAWS than any other and they will hold their teeth and points remarkably. Why not place a trial order and make us prove these statements.

Write to-day

E. C. ATKINS & CO., Makers of STERLING SAWS HAMILTON, ONT.

Vancouver Branch, No. 109 Powell Street, **U. S. Factory, Indianapolis, Ind.**

DOORS IN AN HOUR'S NOTICE

When you order Doors from us you order from

The Largest Door Manufacturers in Canada

A Door a Minute is our Daily Capacity

Why wait weeks for your order when we can supply you any style of Door on an hour's notice, and at a saving on your present buying ?

Our special proposition mailed you on request.

GET BUSY AND INVESTIGATE

Estate James Davidson - Ottawa, Canada

GARLOCK PACKINGS

Garlock Regular Rings

For all general purposes outside of high pressure work. This Packing is a special grade thoroughly lubricated with the celebrated "Garlock" compound, and is the perfected result of over thirty years experience in manufacturing fibrous Packings.

Garlock Square Duck Packing

Made of good quality Cotton Duck and friction for cold water.

Garlock High Pressure Gaskets

Absolutely heat proof, will not vulcanize or blow out under any steam pressure, being made of long fibre Asbestos Brass Wire Insertion.

Garlock Red Sheet Packing

Made of high grade Rubber compounded in such a way as to give it great strength and reliability.

This Packing has established wide reputation on its own merits.

Garlock Cloth Insertion Sheet

Used on cold and warm water pipes. Is unexcelled in pliability, smoothness of finish and strength of Cloth Insertion.

Garlock Rubber Valves

Specially made to meet specific conditions—absolutely unaffected by oils.

Before placing your next order for supplies get our prices on Leather, Rubber and Canvas Belts, Hose, Brass Valves, Babbitt Metals, Saw Blades, Files, Emery Wheels, etc. Write for catalogue.

THE GARLOCK PACKING CO.

Head Office and Factory: HAMILTON, ONT.

MONTREAL TORONTO WINNIPEG

MARITIME PROVINCES

Maritime Lumber Co.
Limited

Head Office: Saint John, N. B.

Branch Office: 180 St. James St. Montreal, P. Q

OFFER

For Rail or Water Shipment:

1,500,000-ft. Merchantable Spruce Side Boards 1 x 4 and up.

For Rail Shipment:

600,000-ft. 3x7 and up 1st., 2nd. and 3rd. White Pine.

Donald Fraser & Sons, Limited
CABANO, QUEBEC

MANUFACTURERS OF

Long Lumber

Rough and Finished

Shingles, Clapboard, etc.

To Reach More Lumber Buyers

Canadian lumber manufacturers and wholesalers should advertise regularly and prominently in the

Canada Lumberman & Wood Worker

This paper reaches all the principal buyers of Canadian lumber at home and in Great Britain, United States, Europe, South America.

Rates on application to the head office.

220 King Street West

TORONTO - ONTARIO

High Grade

N. B. Cedar Shingles

Spruce and Pine Lumber Lath

Rossed Pulpwood

Dalhousie Lumber Co., Limited

Dalhousie, New Brunswick

Agents for Ontario . Laidlaw Lumber Co., Limited

Toronto, Ontario

Selling Mill Stock

If you desire to get beyond the retail dealer and reach the builder and the architect it will pay you to advertise in the

Contract Record

and **Engineering Review**

the only weekly paper in Canada for builders, architects, etc.

Send for sample copies and rates to the publishers

Hugh C. MacLean, Limited

Toronto, Ontario

Place Your Dimension Orders Early

White and Red Pine, Spruce, etc., Bills, any Size, any Length

ROUGH OR DRESSED

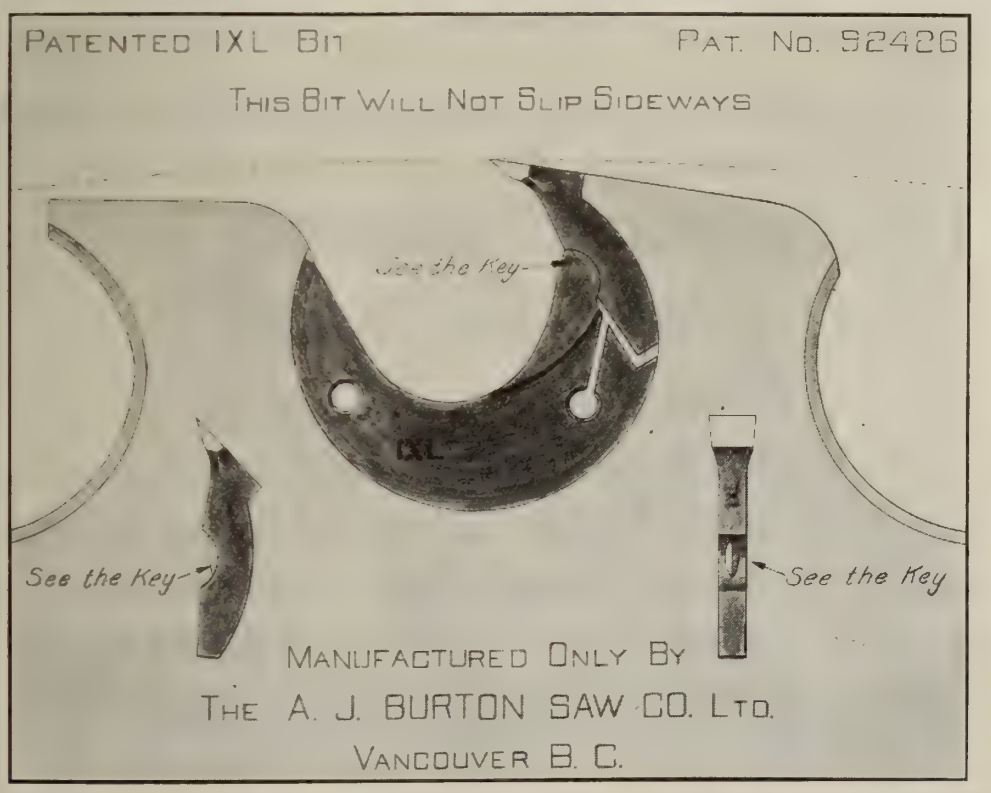
East Entrance, No. 2 Yard

We still have a few cars each dry 1 x 12, 1½ x 12 and 2 x 12 x 12/16 for sale.

Fast Feed Planing Mill in Connection

The Colonial Lumber Co.

Pembroke, Ont.



Our Inserted Saws are Fitted with our Patent I.X.L. Bits and Shanks, warranted not to slip sideways, and to cut free and easy, and have no equal in hardwood or any other timber.

Saws Band, Gang, Solid and Inserted Tooth Circulars, Bits and Shanks

Carried in Stock at our Ottawa Branch. Special Attention given to all Saw Repair Work.

The A. J. Burton Saw Co., Ltd.

HEAD OFFICE AND FACTORY
VANCOUVER, B. C.
BOX 848
Phone 1748

EASTERN OFFICE, SALES-ROOMS AND REPAIR WORKS
374 Sparks St., OTTAWA, ONT.
Phone 7458

Bathurst Lumber Co., Ltd.

Bathurst, N. B.

Two modern saw mills equipped with the latest improved machinery enable us to carry always in stock a large assortment of Dry White Pine and Spruce.

Located on Bathurst Harbour for Water Shipment and on the Main Line Intercolonial Railway for Rail Shipment, we can

Reach Any Market in the World

Possessing the best standing timber in the Maritime Provinces we are able at all times to supply lumber of uniform high quality and strictly up to grade.

Stock Now Ready for Shipment

Merchantable Spruce	White Pine Mill Run
250 M 1 x 4 x 10 ft. and up	50 M 1 x 4 to 6 x 10 ft. and up
250 M 1 x 5 x 10 ft. and up	150 M 1 x 7 in. and up x 10 ft. and up
250 M 1 x 6 x 10 ft. and up	300 M 2 x 7 in. and up x 10 ft. and up
150 M 1 x 7 in. and up x 10 ft. and up	300 M 3 x 6 in. and up x 10 ft. and up
500 M Scant 2 x 6 x 10 ft. and up	100 M 1½ x 7 in. and up x 10 ft. and up
250 M 3 x 6 x 10 and up	50 M 1½ 4 to 6 in. x 10 ft. and up

Write for our monthly stock list giving full particulars of our lumber ready for shipment

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

Phone Main 6386

Mills: Knoxville, Tenn.
Walland, Tenn.
Franklin, Va.

The Atlantic Lumber Co.

Incorporated

Head Office: BOSTON, MASS.

Manufacturers Southern Hardwood Lumber

Canadian Branch

211 Kent Building, 156 Yonge Street, Toronto
Robert Vestal, Manager

ANYTHING IN OAK LUMBER

We have the following stock we are anxious to move, let us quote you on it:

250,000 ft. 1 in. No. 2 Com. and Btr. Basswood
1,000,000 ft. 1 in. No. 2 " " Hard Maple
40,000 ft. 1 x 4 in. 1 face and 2 faces Clear Birch Strips
50,000 ft. 2 in. 1sts and 2nds Unselected Birch
400,000 ft. 1 in. No. 1 Com. Unselected Birch
50,000 ft. 1 in. No. 2 Com. Unselected Birch
100,000 ft. 1 in., 10 and 12 ft. Moulding Birch

Other Northern Hardwoods in complete assortments

BRADLEY TIMBER & RAILWAY SUPPLY CO.

Second Floor Palladio Bldg., DULUTH, MINN.

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

Wistar Underhill & Nixon

Real Estate Trust Bldg., Philadelphia, Pa.
Canadian Rep. - W. J. Anderson, 288 South St., London, Ont.

Y NOT

buy your Hardwoods direct from

THE MANUFACTURER

Can Furnish Anything In---

Kentucky's Best

Quartered White Oak
Quartered Red Oak
Plain White Oak
Plain Red Oak
Poplar
Walnut
Hickory
Ash

Mixed cars furnished at same prices as straight cars.

J. V. STIMSON & CO.,

OWENSBORO, Kentucky

Pearl City Veneer Company

JAMESTOWN, N.Y.

Manufacturers of

Veneers and Panels

IN ALL THE NATIVE WOODS

Three Ply End Panels, Drawer Bottoms and Glass Backs a Specialty

LET US QUOTE YOU PRICES

Factory and Office, Steele St., Jamestown, N. Y.

Our shipping facilities for Canadian Trade cannot be equalled.

Yellow Poplar

MANUFACTURERS WATER SEASONED, BAND SAWED POPLAR LUMBER

All Grades Quick Shipments

COAL GROVE, Ohio, U.S.A.

Lumber Co.

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

LELAND G. BANNING

Manufacturer of

SOFT OAK

Mills: WILMINGTON, O. / FRANKFORT, KY. / SALISBURY, N.C.

Cincinnati, O.

Canadian Representative, A. E. KLIPPERT, 11 Laxton Ave., TORONTO

Manufacturers of Foreign and Domestic Hardwood Lumber and Veneers.

Ohio Veneer Company

—— Importers of ——

MAHOGANY AND FOREIGN WOODS

Office and Mills: 2624 to 2634 Colerain Ave., CINCINNATI, OHIO.

R. A. Wells Lumber Co.

Wholesalers and Exporters of

Hardwood Lumber

of All Kinds

Special attention to Canadian trade. Prompt Shipments

Our speciality is 1″ to 2″ Gumwood, 1″ to 2″ Oak, both plain and quartered stock, 1″ to 2″ Ash and 1″ Cottonwood.

WRITE US BEFORE BUYING

230 S. LA SALLE STREET - CHICAGO, ILL.

THE SOUTHERN LUMBER AND BOOM CO.

SALES OFFICE, CINCINNATI

Band Mills: Valleyview, Ky., Glendora, Miss.

Manufacturers

OAK — GUM
POPLAR — CHESTNUT
ASH — CYPRESS

Lower Michigan Hardwoods

Rock Maple, Beech, Birch, Basswood and Ash, White Rock Maple Flooring and Hardwood Dimension

We have four large mills, sawing the year round on Virgin Hardwood Timber. We can furnish you any standard grade or thickness. We own our own fleet of boats and can make water shipments. Send us a list of your wants. We can serve you best.

W. H. White Company — Boyne City Lumber Co. Wholesale Yards at Buffalo, N.Y. Mills at Boyne City, Michigan

Duhlmeier Brothers Manufacturers Hardwood Lumber

MILLS { Kentucky, Tennessee, Mississippi.

Main Office and Yards { CINCINNATI, OHIO

We now have in stock dry and ready for prompt shipment 500,000 ft. of 1-in., 1¼-in., 1 1/2 and 2-in. plain Red Oak, nice soft texture, good widths, good lengths. Also a nice stock of Red and Sap Gum, Plain and Quartered Cut Oak. Let us quote you delivered prices.

OUR LUMBER IS MANUFACTURED RIGHT AND GRADED RIGHT. WE CAN SHIP QUICK.

Eastern Representative **James H. Walsh,** 95 W. Mohawk St., Buffalo, N. Y.

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

Long-Knight Lumber Co.

Manufacturers Indiana and Southern

Hardwoods

OAK, ASH, CYPRESS Our Specialties

Address all inquiries to the Main Office at—

INDIANAPOLIS, INDIANA

Theo. Fathauer W. M. Hopkins

Theo. Fathauer Co.

WHOLESALE HARDWOOD LUMBER

Our Specialties

Plain and Quartered White Oak. Figured and Plain Red Gum

Southern Yard - **Helena, Ark.**

Address correspondence to

1428 Cherry Ave., Chicago

YARDS: ORLEANS, IND.; FORT WAYNE, IND.; PAOLI, IND.

S. P. Coppock & Sons' Lumber Co.

Manufacturers of and Dealers in

Hardwood Lumber

Indiana Quartered Oak
Ash, Basswood, Poplar

Main Office - FORT WAYNE, IND.

OUR SPECIALTY:

Anything in HICKORY LUMBER

Canadian Representative, MR. S. D. SMITH

W. M. Ritter Lumber Co.

MANUFACTURERS

Columbus : : Ohio

Band-sawed West Virginia Soft Yellow Popular, Basswood, Chestnut, Red and White Oak, all grades and thicknesses in stock, dry.

No Mixed Grades

We ship the product of our own mills only which produce annually over 100,000,000 ft.

Send us your inquiries direct or communicate with our Ontario Representative

John Hall, 266 Huron Street, **Toronto, Can.**

Phone College 907

W. O. King & Co.

HARDWOOD LUMBER

Our Specialties

Michigan Hard Maple, Birch and Basswood

2452 S. Loomis St., CHICAGO, ILL.

DRY BEECH

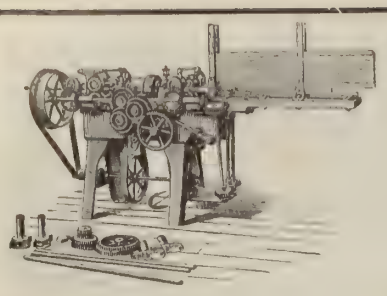
We want to move 200,000 feet 5/4—No. 1 and better dry Beech. A Snap at the Price.

Also quick deliveries on NORTHERN HARDWOODS, YELLOW PINE, OAK DIMENSION, FIR, HICKORY, OAK, CAR STOCK and PILING.

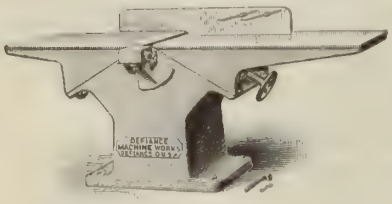
Estabrook Skeele Lumber Co.

Manufacturers and Wholesalers

CHICAGO, ILL., U. S. A.



Chapin Handle Lathe



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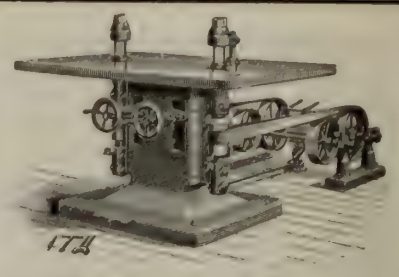

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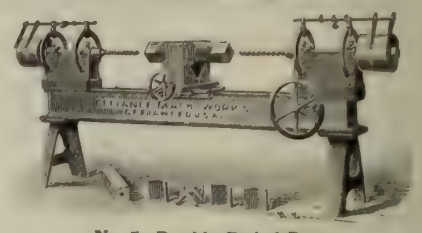

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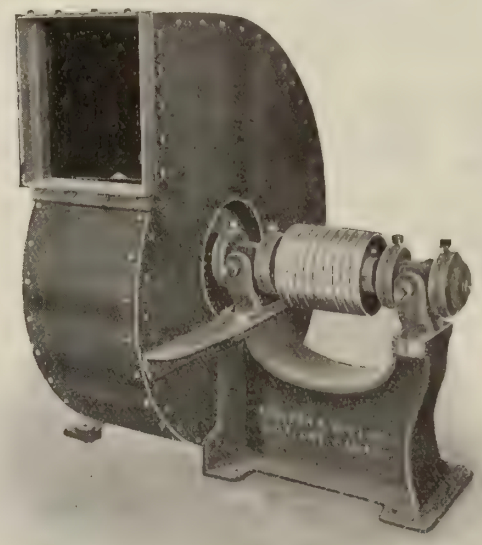

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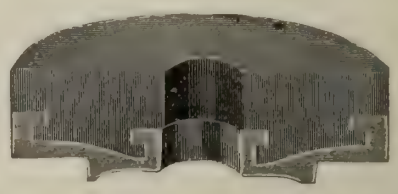

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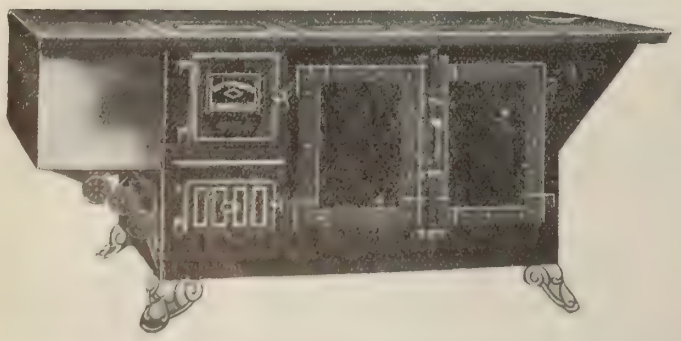

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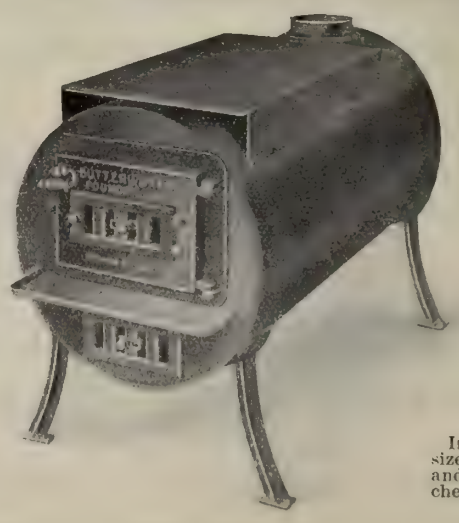

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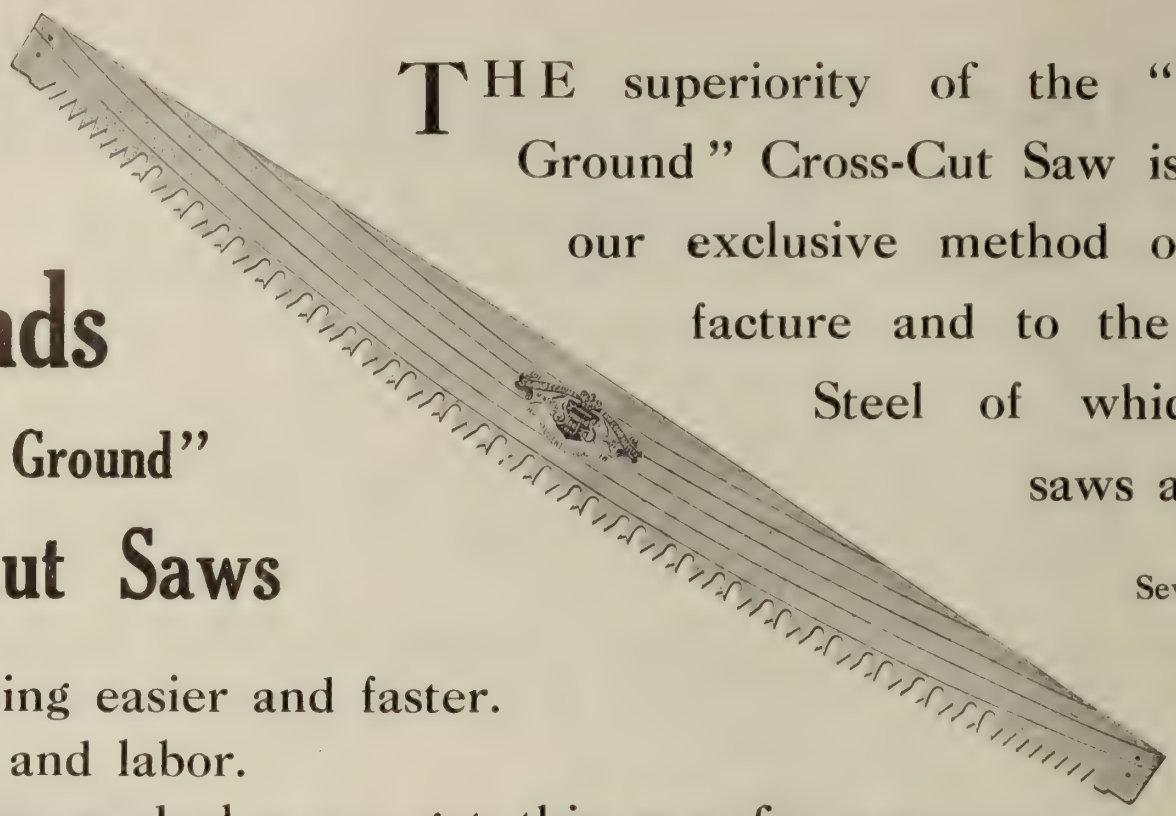

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A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 32 Toronto, August 1, 1912 No. 15

Dearth of Labor in the Maritimes

There is no more striking feature of the industrial conditions of the Maritime Provinces to-day than the recent complete reversal of the market situation for most of the manufactured products. It is only a matter of a few years since manufacturers in the Maritime Provinces were experiencing difficulty in selling their goods at a price which meant a profit. It is scarcely more than a matter of months since conditions were far from satisfactory. To-day there is a very different story to tell. In all the important lines of industry the report is made that it is impossible to keep up with orders. The Maritime Provinces themselves are furnishing a better demand for manufactured articles than ever before, and with a few peculiar exceptions, the foreign markets are equally strong.

Going hand-in-hand with this situation is another, which is far from satisfactory, and which is, in fact, the only serious deterring factor in the industrial life of the Maritime Provinces. This drawback is a great shortage of skilled labor. Manufacturers with scarcely an exception report a splendid demand but a shortage of skilled labor which keeps them at their wits ends. This condition is not peculiar to the lumber manufacturing industry. It is in fact perhaps less acute in this industry than in some others. In the boot and shoe factories and the woolen factories perhaps more than others, great difficulty in securing skilled labor is experienced. In foundries and machine shops and large engineering works the same report is heard. Many of these industries have reached a stage where they would be warranted in increasing the capacities of their plants, but they are restrained from doing so because of the difficulty experienced in securing skilled workmen to operate their machines.

The lumber industry has in a measure escaped this difficulty because of the peculiar nature of its employment, as men become in many cases attached to the work. They are brought up in it and develop a preference for it which keeps them at the work most of their lives and frequently they stay with the one concern for many years. While lumber manufacturers however have not experienced great difficulty in keeping their mills fully manned, they have unquestionably suffered in their pockets from the scarcity of labor in other industries. There is no question that throughout the Maritime Provinces, many important buildings would be under erection to-day, consuming large quantities of lumber, if it were possible to secure sufficient skilled labor to man the new plants. Apparently it cannot be done and the Maritime Province lumbermen, in company with many other industries are only reaping a partial harvest, while business which they should be doing is being directed to manufacturers in other countries who are more fortunately situated.

Unquestionably the most serious problem which the Provincial Governments of New Brunswick and Nova Scotia have to face today is this essential one of attracting skilled laborers to the country. So far as farm labor is concerned they have been working persistently for some years and the results are commencing to show. In Nova Scotia for instance the immigrants during the year 1911 numbered 2057. Among these there were 205 farmers, 118 laborers, 357 miners, 107 craftsmen, 308 housewives, 187 domestics and 530 children. It will be seen from these figures that in the important elements of tillers of the soil, laborers for the mines, housewives and children the statistics are encouraging, but for the manufacturing industries which are crippled for want of skilled labor, there has been very little relief. The 107 craftsmen coming to Nova Scotia during the year would give but little relief. They would, in fact, probably do little more than balance the drain from these ranks, on account of migration to the west and to the United States.

The reasons for this difficulty should be searched out by the governments and by all who are affected by it. Undoubtedly the trades unions have had much to do with the situation and it is certain also that manufacturers have not sought the assistance of the governments to the extent that they should. The position taken by the government in this connection is that they are not warranted in importing skilled laborers unless it is shown that they cannot be secured at home. The immigration departments of the governments stand ready to search out skilled laborers and to help them to come to Canada, whenever manufacturers, asking for such assistance, show that there is a scarcity of such labor at home. The Nova Scotia government however, has received very few requests for such assistance.

It is however a debateable question whether the governments are justified in waiting for the complaints of the manufacturers before attempting to import skilled laborers. The immigration departments exist for the purpose of bringing useful settlers to the country. It would require but a brief enquiry into the conditions prevailing to-day to prove that there is a great need for skilled laborers and the governments would be justified in acting upon their own iniative in the matter.

There is need, in fact, for the governments of New Brunswick and Nova Scotia to take the question of immigration far more seriously into consideration than they apparently have been doing. The future development of the country is vitally dependent upon immigration. Great agricultural possibilities for instance are being wasted. In the Annapolis Valley during 1911 there were two million barrels of apples produced. A conservative estimate places the possible output of the valley in apples at ten million barrels. Out of a total of one million acres of orchard land in the Annapolis Valley only 50,000 acres are being cultivated. The outlook to-day is for an apple crop of just the same size as last year's. The Hertford Valley in Cumberland County, the greater portion of northern Queen's county, and various valleys in Pictou and Colchester, and in Cape Breton could produce fruit as successfully as the Annapolis Valley. The development of the fruit growing industry in these districts on a scale commensurate with its possibilities, would mean a greatly increased demand for apple barrels, which would afford a splendid opportunity for increased business for barrel manufacturers. The greatest importance however, of the proper development of the agricultural possibilities of the Maritime Provinces lies in the home

markets which increased population would provide for all kinds of manufactured products. The lumberman would have his share in the increased prosperity, and the whole country would be able to share as it should in the development which is taking place in other parts of Canada.

The Maritime Provinces are under a disadvantage on account of the extensive advertising which has been given to Western Canada. For the sake of the general prosperity of Canada it is all-important that the west should be settled. At the same time the movement has been directed so persistently to the west, that eastern Canada has suffered unjustly. The Dominion Government and the Governments of the Maritime Provinces ought to devote in future a greater amount of thought, energy and money to the settling of the agricultural lands of the Maritime Provinces and to the securing of skilled laborers to enable the manufacturers of the east to measure up to the opportunities, which at present they must ignore.

New Brunswick's New Timber Policy

The Government of the Province of New Brunswick is at present confronted with the task of devising a new policy for the management of its timber lands. All the crown timber lands are at present under license to operating lumbermen and the existing licenses will all expire in the year 1918. The value of a license to cut timber depends, more than anything else, upon its permanency. Lumbering operations require large amounts of capital. When it is a matter of doubt whether licenses to cut timber are to continue for any length of time without unfavorable alterations being made in their terms, the banks commence to look upon them suspiciously when presented as security for loans.

The present licenses in New Brunswick have only six more years to run. The margin of their safety as banking security has already been reached and it has become an imperative necessity that the Government of the Province announce definitely and at an early date, under what conditions licenses to cut timber on provincial Crown lands are to be granted after 1918. Without an early announcement of this nature a disastrous condition of affairs must result. The banks will commence to stiffen their terms for loans for lumbering operations. The owners of existing licenses, being in the dark as to their future position, will appreciate only their present powers and will cut all the lumber they can until their doubts have been set at rest. Such a set of conditions would be disastrous and intolerable. It would involve needless destruction of standing timber, followed by declining prices for manufactured lumber and inevitable failure for those who are not financially panic-proof.

That the government of New Brunswick will realize the necessity for immediate action seems probable. Already many rumors are abroad as to the terms of the new timber policy, indicating that the government has already discussed its terms informally. Some of these reports are curious enough to give further reason for an early announcement. One report has it that special inducements are to be given to saw-milling companies which will undertake to erect a pulp mill in conjunction with the sawmill. At first glance this seems plausible, but the question arises, whether this could be done without unreasonably penalizing those sawmill operators whose conditions make a pulp proposition impossible. Another report has it that the existing leases are to be wiped out and new ones created of which a chief characteristic will be that they will be made proportionate to the sawing capacity of the mills with which they are connected. The object of such a proceeding would be to give the small operator a better opportunity of conducting his business on a parity with the large ones, and also to prevent the accumulation of great timber holdings by any one company. The suggestion is one which probably has come from some of the smaller license owners, with whom the wish is father of the thought.

These rumors and the urgent necessity for the removal of uncertainty upon the subject, make the question one which the government cannot postpone without causing inexcusable injury. The Canada Lumberman understands, upon the highest authority, that before the next sitting of the Legislature of New Brunswick, the Government will make an announcement of its policy. If this is done, and time is given for public discussion of the question before the Legislature passes upon it, the lumbering industry, one of the most important in the province, will be relieved of a burden which is already pressing upon it heavily. For the sake of the whole industry and as a matter of public duty, the Government should lose no time in making its announcement.

Substitutes for Lumber

The serious questions involved in the increasing use of substitute materials in the place of wood, are being closely studied by the United States Forest Service. Investigations show that those who are marketing substitutes for lumber and its products are leaving no stone unturned whereby their products may be favorably brought before the purchasing public. This fact was well brought out in a recent interview with the Director of the Federal Office of Wood Utilization, at Washington, who expressed himself on the subject as follows:

"Substitution of other materials for wood has made startling and sensational advances, especially in the last five years. You can hardly turn to a large industry that does not show the inroads of a substitute for wood. Very likely the cry that our forests are going fast is in a measure responsible for this wholesale substitution. Looking at this matter from an entirely economic and practical viewpoint, without any special prejudice in favor of wood, I am as yet unable to decide whether the benefits of this wholesale substitution outweigh its bad features or not; but this I do know: substitution is the skeleton in the closet of practically every lumberman and wood-manufacturer in the country. It is the secret peril of the entire wood-working trade.

"Only a few years ago, during the late panic, the whole talk of the lumber trade was pitched to this key: 'Just wait until the railroads begin to hand out orders again and then we'll come back into our own all right and make up for lost time.' The railroads, however, did not come back into the market again for lumber—at least, not in the old sense of the term. The car shop that formerly used eighty million feet of wood came for only ten million at most. The substitute had made its appearance. The old style Pullman car contained twenty thousand feet of wood; the present type contains only four hundred feet.

"Previous to the panic, it has been the policy of the railroads running west of Chicago to use timber in their bridges, as well as in their depots, station platforms and wherever it could be used. They were expected to come back into the market for these, but they did not. Instead, they built concrete bridges, stations and culverts. In their platforms they used brick and cinders. The same change has been going on in the country districts. An old retail lumberman told me that he used always to sell the highway commissioners of his section timbers and lumber for the bridges and culverts in their territory; but suddenly they changed the policy of construction to concrete, and in self-defence he was forced to buy two brickyards.

"Small boats were formerly built entirely of wood; now they are largely galvanized iron and steel. The same substitution is going on in agricultural implement manufacture. The makers are using metal in the place of wood wherever they can. The reason they give for this is that the kinds of wood they need are becoming very scarce and dear. Wagon manufacturers are also making iron wheels and gearing to an increasing extent.

"Oddly enough, this problem of substitution is to a very large extent a question of advertising. How many wholesale lumbermen

advertise in the popular magazines and periodicals? Not a single lumber firm! One lumber association in the South, however, was shrewd enough to attempt to increase the use of its products by means of advertising directly to the consumer. What was the result? Why, the experiment was an immediate success, and it is hardly an exaggeration to say that the use of this particular wood was multiplied by the publicity it received. On the other hand, all the building substitutes are floated by liberal advertising campaigns. There is not a patent roofing, building paper, stucco or plaster that is not sold almost exclusively on an advertising basis. Undoubtedly the lumbering interests must go into the advertising field if they are to maintain a successful war against the encroachments of the building substitutes. Another way of meeting the assaults of the substitute is to find increased uses for each particular wood. Here is where the Office of Wood Utilization can be of greatest service and it is pushing its work as rapidly as possible."

New Timber Areas Explored

Some parts of Northern Ontario, for instance, the district in the vicinity of Georgian Bay, still hold timber, mineral and water power wealth which remains to be developed. According to several men who are in a position to know and who visited that district recently, there are still parts that are thickly dotted with valuable timber that is as yet untouched, owing to the fact that railways have not made their advent into the territory. A well known Canadian who has recently toured the country in the vicinity of the Pickerel system, that is, Pickerel, Barnardo, Sucker and Deer Lake and also Duck and Wilson Lake, states that the country is very valuable from a lumberman's standpoint and he further advises improvement in roads and water ways. At the present time Messrs. Chew Bros., the Georgian Bay Lumber Co., the Stahdler Lumber Co., and the Victoria Harbor Lumber Co., are cutting in this district, principally in the vicinity of the Dokis Indian reserve. The road from Trout Creek to Loring, which is about 45 miles long is in fairly good shape, but still it could be improved upon to a considerable extent. The farmers, who are principally Italians and Germans, get very low prices for their products, owing to poor transportation facilities, and the townships are as yet unorganized and the need of good roads in most of the districts is keenly felt. The lumbermen as a rule do not pay much attention to the roads. Their principal work is done in the winter and consequently they only make a winter road, which is of little use to the settlers. Another drawback is the fact that there is no good road material in the country and it all has to be imported. One improvement that lumbermen and settlers of this district want, is the abolishing of Wilson's dam on Wilson Lake and the raising of Dollars dam; three feet, which would give 35 miles of navigable waters between Dollars dam and Wilson Lake. A road from Lost Channel to Mowat is also asked for. This road would be about 7 miles long and would give better access to the Wilson lake country. It is said that the government have already interested themselves in these projects. There is a large amount of hemlock, ash, birch, beech and maple in this district. The advent of railroads will no doubt open up this country to a considerable extent in the near future. It is very valuable from a timber standpoint and its mineral wealth is practically unknown. The country is well watered and there a number of water powers of great commercial value that could be utilized by progressive lumbermen, who would develop them. This water power lies in the vicinity of Duck lake and Dollars dam.

Ontario lumbermen as a rule are rather pessimistic as to the future of the Ontario lumber supply. Many of them state that the province is practically depleted of its valuable timber, but when information such as the foregoing has been supplied, it would seem that the large lumber companies still have many years cutting ahead of them. There are numerous parts of Ontario that only need railroads to develop them and these tracts as a rule are well timbered. As Ontario progresses and as her citizens come to know her great resources particularly in the timber line to a greater extent, improvements are bound to come, in the railroad service. The railway companies that operate throughout Ontario are rapidly coming to recognize these conditions.

Illuminating Gas from Sawdust

Considerable attention has been attracted to a small Canadian saw-mill town, which is utilizing sawdust from a large sawmill to make illuminating gas. The venture has been a success in every way, and mill owners in general are taking quite an interest in the project. The mill cuts on an average of 120,000 feet of lumber per day, and in consequence makes large quantities of sawdust and other waste wood. A considerable quantity of this waste was used in the engine room, but enough and more remained to be utilized in the gas manufacturing plant.

The plant consists of two branches of five horizontal retorts, each capable of distilling ten tons of sawdust per day. The retorts are cast iron 1½ in. thick and 12 in. in diameter. They are provided with archimedean screws having conveyor flights of cast iron on a 2½-in. shaft. The sawdust is delivered to the screws in the retort from a hopper at the front and is then passed through a vertical 6-in. pipe to the retorts by means of a screw conveyor. The rate of speed of the main screw is regulated so that a thin layer of sawdust continually passes along the bottom of the retort from front to rear, and it is carbonized on its passage and delivered at the rear end into a main provided with screw conveyor by which it is delivered to an air-tight sheet iron car. There is a conveyor main common to all retorts at the rear end, and from this main the vapors and gases are passed to a condenser. The system is provided with a gas exhauster and scrubber, the pressure in the retorts being maintained by this means at as near zero as possible. The sawdust used is made from Canadian pine which was dried in a special steam drier before being delivered to the retort. Little attention is paid to the residual product consisting of wood alcohol, acetic acid, and tar, owing to the fact that the plant is purely for the production of illuminating gas, and again the residue is insignificant in quantity, and not worth the expense of refining.

Canadian lumbermen in general who have examined this plant are enthusiastic as to the future possibilities of the utilization of sawdust for illuminating purposes. Many of them are of the opinion that mill waste might be used to some advantage by passing all the waste wood through a "hog" and carbonizing it, as the process can be carried on automatically and with a minimum of labor. At the present time there are a large number of mills in Canada that are cutting anywhere from 50,000 to 200,000 feet per day. These mills are situated as a rule, in small towns of from 600 to 1000 population, and there is no doubt but that if their waste products were used to advantage the mill men would benefit largely, as well as the inhabitants of the villages and towns.

A novel electrical method of treating timber is said to have given striking results in France, and to have changed the greenest wood into perfectly seasoned material. A watertight tank of suitable size is required. The timber is piled on a large lead plate at the bottom until the tank is full, when a second lead plate is placed on top of the pile and connected to the negative pole of a dynamo, the bottom plate being connected to the positive pole. The space around the timber is then filled with a solution containing 5 per cent. of resin, 10 per cent. of borax, and a trace of carbonate of soda. On turning on the currnt, it passes from plate to plate through the wood, driving out the sap, and the resin and borax takes its place in the cells and interstices. This process being completed, the timber is taken out and dried, when it is ready for use.

Notable Pulp and Lumber Organization

Unique Timber and Power Resources of the Trois Pistoles Pulp and Lumber Company—Important Developments under Consideration for Production of Pulp

J. E. Tobin, Manager Trois Pistoles Pulp and Lumber Co.

During the past few years one of the most significant industrial developments in the province of Quebec has been the great attention which has been directed to its pulpwood resources. It has been borne in upon the minds of the people of Quebec that in their vast forests of spruce they have a natural resource which will, if properly conserved, yield great wealth to the province for all time to come. The disappearance of the pulpwood forests in the Eastern United States has given to the spruce of Quebec a value far beyond what was ever expected until a few years ago, and already a great pulpwood producing industry has grown up in many parts of the province. It is not an exaggeration to assert that Quebec, as a pulpwood, and even as a pulp and paper producing province, will, in the course of a very few years, occupy a foremost place among all the pulpwood producing countries of the world. Not only is this already assured, but Quebec occupies the enviable position of being able to depend upon a practically everlasting supply of pulpwood, if these resources are exploited in a manner regulated by reasonable precaution against destruction by fire and practical operating methods based upon modern principles of conservation.

Realizing the great opportunities thus presented, many of the more progressive lumbermen in the province of Quebec are devoting their attention and their means to the building up of pulpwood, pulp and paper producing industries in those localities which present favorable conditions, of which fortunately there are many. One of the companies which have seen the greatness of these opportunities and are preparing to develop them, is the Trois Pistoles Pulp and Lumber Company, of Tobins, P.Q.

On the Riviere Trois Pistoles, about 146 miles below the city of Quebec, on the south side of the St. Lawrence River, the Trois Pistoles Pulp & Lumber Company have one of the most interesting and efficient plants for the production of lumber, shingles, lath and rossed pulpwood in the province of Quebec. The mills are the mainstay of a prosperous little village known as Tobins, being called after the principal member of the company, Mr. E. W. Tobin, M.P., of Bromptonville, Que., president of the Tobin Manufacturing Company, of the latter place.

The town of Tobins is located on the Intercolonial Railway, about two and a half miles from the prosperous village of Trois Pistoles. Its location on the Riviere Trois Pistoles is at the mouth of the river where it empties into the St. Lawrence River.

The management of the company is in the hands of Mr. J. E. Tobin, who fulfills also the duties of treasurer. Mr. Tobin, who has risen rapidly, commenced his business career in the employ of Mr. E. W. Tobin, as a clerk in his store, at the age of fifteen. A year later he had shown his capabilities so clearly that he was entrusted with the management of the store. Subsequently he associated himself with the Lotbiniere Lumber Company, at Lyster, Que., and remained with them as manager for four years. Then he spent a couple of years as manager for the Tobin Manufacturing Company, at Bromptonville and he was next appointed manager of the Trois Pistoles Lumber Company. He has occupied this position with unique success for the past four years. Mr. Tobin is a young man, filled with ambition, and looks forward to bringing about important developments at Tobins, in connection with the extensive water powers on the Riviere Trois Pistoles. He has already attracted the interest of an important group of capitalists in these water powers and is planning for the erection of a large pulp mill. The company is in an ideal situation for such a proposition, both as regards the available water power and the supply of timber.

Trois Pistoles Pulp and Lumber Company—the Upper Mill

Trois Pistoles Pulp and Lumber Company—the Lower Mill

Summary of the Company's Timber

To demonstrate the truth of this statement one needs only to examine the estimates of the company's timber resources. In tabular form these resources make the following showing:—

	Cords of Pulpwood	ft. Spruce Logs 8″ & up	ft. other timber ft. Cedar	ft. other timber mostly Birch
Seigniory or Freehold.	522,000	60,000,000	20,000,000	40,000,000
Bedard Limits.	261,000	65,000,000	87,000,000	17,000,000
Radout Limits.	63,000	20,000,000	10,000,000	5,000,000
Other Limits.	23,000	2,000,000	2,000,000	not estimated
Totals	869,000	147,000,000	119,000,000	62,000,000

Estimating the spruce logs at two cords of pulpwood per thousand feet, the 147,000,000 feet would make 294,000 cords of pulpwood. This brings the total in pulpwood to 1,163,000 cords, and it is estimated that a further 230,000 cords are available on farmers' lots. For a pulp-producing proposition, therefore, the company's holdings and power possessions are exceptionally favorable and there is every likelihood that the near future will witness the erection of a large pulp producing plant at Tobins.

The Company's Two Saw Mills

The sawmilling plant of the Trois Pistoles Pulp & Lumber Company includes two mills. The lower mill near the mouth of the river and close to the I. C. R. tracks, is a building 41 x 124 feet, with a wing 41 x 68 feet, exclusive of the boiler and engine rooms which are constructed of brick. This mill is equipped with four boilers having a capacity of 500 h.p., and twin engines having a capacity of 340 h.p.

The plant is run exclusively by steam. With its equipment of circular and gang saws, shingle mills, lath machines and rossers, this mill has a capacity of 40,000 feet of sawed lumber, 125,000 shingles, 20,000 lath and 25 cords of rossed pulpwood per day. An important feature is the yard for piling, which is about 2,500 feet x 1,500 feet. A yard track some 2,000 feet in length connects with the wharf, 450 x 800 feet, on the St. Lawrence River. In connection with this mill the company has large stables, shops and numerous dwelling houses, including the manager's residence and office. The upper mill is situated about two miles up the Riviere Trois Pistoles from the lower mill and is connected with the main line of the I. C. R. by a spur track. The main part of this mill is 68 x 154 feet. It is equipped with three boilers having a capacity of 600 h.p., and twin engines with a capacity of 340 h.p. The sawing equipment includes circular, band and gang saws, shingle and lath machines and rossers, and its capacity is 50,000 feet of sawed lumber, 125,000 shingles, 20,000 lath and 30 cords of rossed pulpwood per day. The yard is 700 x 900 feet, and the company also have stables, shops and houses for employees at this point.

When acquiring the properties along the Riviere Trois Pistoles, the company also acquired a grist mill located half way between the two mills, the object being to obtain absolute control of the river. Near each of the mills the company owns large springs of water suitable for domestic purposes and capable at a moderate expense of furnishing abundant fire protection. The exclusive right to furnish the village of Trois Pistoles with water power is also owned by the company.

Extensive Timber Resources

The timber owned by the Trois Pistoles Pulp & Lumber Company is easy of access and includes 40,000 acres of freehold lands, 70,000 acres within forest reserve and 20,000 acres outside forest reserve, a total of 130,000 acres.

These timber holdings include the Seigniory of St. Mathieu, 40,340 acres, which is held in fee simple, 28,000 acres of which are exempt from even local taxation. No portion of this Seigniory is subject to government taxation or stumpage dues. On these lands, as will be seen from the estimate given above, the company have 522,000 cords of pulpwood, about 20,000,000 feet of cedar, 60,000,000 feet of spruce logs, 8 in. and up, and about 40,000,000 feet of other timber, mostly birch; a goodly heritage in itself. The timber upon this property is not its sole resource. It contains also quarries of red sandstone of excellent quality, which have already been moderately developed. Embraced within its limits are also about fifteen lakes, affording the possibility of water storage under practical conditions, for maintaining a uniform flow of water in the rivers Boisbouscache and Trois Pistoles.

Under license from the Province of Quebec, the company hold 70,000 acres of limits, within the Forest Reserve, and adjoining the freehold lands. Outside Forest Reserve the company holds about 20,000 acres of lands under provincial license. The limits within Forest Reserve are withheld from colonization. Those outside are subject to colonization.

The driving facilities on the rivers within the company's limits are excellent. The Riviere Trois Pistoles is one of the principal rivers of the province. It has a large and steady flow of water during the entire year. One of its many tributaries, the Boisbouscache, is an important stream itself, because of its numerous lakes. A comparatively small outlay only is involved for converting these lakes into reservoirs for the storage of water to make a steady flow throughout the year certain in times even of extreme drought. In addition, there are few better opportunities for the development of large water powers than is afforded by the Riviere Trois Pistoles, in the last two miles of its course before reaching the St. Lawrence.

The Trois Pistoles Pulp & Lumber Company own all the shore rights and water privileges at the mouth of the Riviere Trois Pistoles and running up that river about three and one-half miles on one shore and about three miles on the other. They also own all the river improvements and by virtue of an order-in-council of the Quebec Government, have power to collect tolls for their use. In a distance of two and a half miles from its outlet the Riviere Trois Pistoles has an actual fall of about two hundred feet. Four of these falls will permit of profitable development.

The Trois Pistoles Pulp & Lumber Company attach great importance to their pulpwood property and their water power. The Quebec Legislature recently passed laws prohibiting the export of pulpwood taken from Crown lands. It is a known fact that the supply of pulpwood in the United States is well nigh exhausted and that nearly all mills using wood pulp have been dependent, either wholly or in part, upon importation of Canadian wood. By this act of the Province of Quebec, the supply of pulpwood from the province available for purchase by these mills is restricted to freehold lands. Pulpwood from Crown lands must be converted into pulp or paper in the province. The inevitable result is a marked increase in the value of limits close to ample power, easy of development, and a far greater appreciation of the value of freehold lands.

The operations of the company, dating back to 1904, have been characterized by a policy of careful conservation of their timber. They have preserved their own timber as far as possible, and drawn extensively upon the timber which could be purchased from farmers. The result is to-day that the company are in an excellent position in regard to all the essential elements of a successful pulp and lumber producing organization and that they find themselves on the threshold of great developments at a time in the history of the pulp and lumber industries which has every indication of being the commencement of an era of exceptional expansion and prosperity.

With the capable management which Mr. J. E. Tobin gives to the affairs of the company and with the assistance of a board of directors who keep closely in touch with the business conditions of the industry, it seems assured that a successful future is before the company. The officers of the Trois Pistoles Pulp & Lumber Company are as follows: President, E. W. Tobin, M.P., Bromptonville; vice-president, C. I. Gagnier, Springfield, Mass.; secretary, J. A. Begin, M.P., Windsor Mills, P.Q.; manager and treasurer, J. E. Tobin, Trois Pistoles, P.Q.; directors, E. W. Tobin, C. I. Gagnier, John Bird, Canton, N.Y.; Fred S. Morse, Springfield, Mass.; R. D. Tobin, Bromptonville, P.Q.; J. E. Tobin, J. A. Begin and Royal Newton, Coulton, N.Y.

The Future Supply of Canada's Lumber

Honorable W. R. Ross, the present Minister of Lands of British Columbia, a man who has shown himself to be one of the most alert and able administrators in his particular line, that the province has ever had, is enthusiastic about the future possibilities of British Columbia's timber trade. The Honorable Mr. Ross has aimed to make himself acquainted with the province by personal observation, and by meeting the manufacturers and others who are vitally interested in the province's future welfare. In pursuance of this most commendable policy he set out, a short time ago, on a most arduous trip to examine the timber areas along the Fraser and other rivers, and incidentally an inspection of the measures being taken to safeguard British Columbia's great timber interests. The minister is more than enthusiastic since his return from the trip, as regards the future possibilities of the timber district. He admitted that he was surprised at the stand and size of the timber, and stated that in his opinion the estimates of the department would have to be doubled.

While declaring that there are no detailed estimates, Mr. Ross says that there is easily twenty-five billion feet of timber above the north and south forks of the Fraser alone, and further, that the Crown still possesses a lot more timber than is under lease in that area. It is also said that the district contains one of the most wonderful pulp areas in the world. "There is the biggest opportunity ever offered in the world for the development of the pulp industry in that one portion of the province alone," says Mr. Ross. "There is spruce and cottonwood in illimitable quantities. Water powers exist in plenty, and the government railway policy is giving the wealth of the north country the transportation facilities, which is all it needs for successful and more profitable development."

The country, from all reports is becoming very quickly settled, and parts where there is land available for farming purposes are rapidly being occupied. "I intend to have a special investigation made by experts as to the uses to which the particular timber of this province can be put, and the markets in which it can be disposed of," said the minister. "My forestry policy is to promote in every way the development of industries which will utilize the timber of British Columbia."

From all accounts, Mr. Ross is a close observer, and one who is not given in any way to exaggerate. Canadians have long known the possibilities of British Columbia as a timber country, but they have never paid very much more attention to its development. The East if the present rapid increase in building and exports continues, will soon have its lumber supply practically depleted, and in that case British Columbia must be looked to to supply Canada's building materials. If the forests in this part of Canada are properly taken care of, i.e., if the Government has a good system of fire protection and incidentally does not allow the lumber companies to waste any of the valuable timber areas of the province, there will be a great future in store for the timber industry on the western coast. Exports too, will benefit largely. The Panama Canal is rapidly nearing completion and from all accounts, British Columbia's timber exports will be doubled or even trebled when that great waterway is opened to the commerce of the world. It therefore behooves every British Columbian, no matter what his station in life may be, to do all in his power to assist a man of Mr. Ross's calibre, a man that thoroughly understands his business, and moreover one who will work for the interests of the people whom he represents.

Nova Scotia Lumber Trade Conditions

Abnormal Freight Rates for Ocean Carriage Deflecting Trade from Great Britain to United States Markets - No Decline Expected — Foreign Market Conditions

By the Editor of the Canada Lumberman

Halifax, N.S., July 20th: (Special correspondence of the Canada Lumberman): In many respects the lumber trade of Nova Scotia during the present year has been similar to that of New Brunswick. Of the export markets, Great Britain has been discouraging on account of high ocean freight rates and the United States markets have been unexpectedly active. The South American market opened well but fell off badly and the West Indies market has been firm and a little stronger than last year. Shipments to Great Britain are very small. Delivery values are practically the same as last year but the freight rates are out of all proportion, being about 50s. to 60s. per standard for continental ports. Last year they were from 35s. to 40s. per standard. A vessel was recently loaded at Mulgrave, N.S., on a freight rate of 60s. for a United Kingdom port. Prices in the English markets, although higher than a year ago have not shown an advance in proportion to the advance in freights. Reports from several of the larger brokers in the Old Country give good reason for believing that prices in England will at least hold at their present level and that possibly they may advance. Vessels have already been secured for next year on a time charter at the rates which are in force to-day, indicating that ocean freight rates are not likely to decline.

A well known representative of an English firm of importers when asked for his reason for expecting prices to hold, said that buyers in the Old Country were now persuaded that freight rates would not come down. Under these conditions English buyers would find out presently that if they want the lumber they must offer the prices asked. That there has been no falling off in the demand for Maritime Province stocks in the Old Country as a result of the high freight rates is shown by the consumption at Liverpool and Manchester for the month of June, which amounted to 7960 standards as compared with 5,710 standards during June, 1911. The stocks on hand, however, at the end of June amounted to 23,250 standards, being larger than at the same date in any previous year since 1907, when the total yas 27,030 standards.

Decline in South America Demand

The South American market has recently shown a decided falling off in demand. At the beginning of the season there was a good demand from South America and most of the stock now being shipped to that market was sold in the late winter or early spring. Nova Scotia manufacturers contracted then at good prices and are therefore very little affected by the recent falling off in the demand. This stock is sold f.o.b. Nova Scotia ports, to New York and Boston brokers who charter vessels and ships to South America from Nova Scotia. Freights to South America have risen, in harmony with freights to other points. They are now ranging from $11 to $12 per thousand, whereas a year ago they were from $8.50 to $9.50. The demand in South America has been mostly for 1-in. x 3-in. and 1-in. x 6-in., with a small percentage of 1-in. x 4-in. and 5-in., and not infrequently some 1-in. x 7-in. to 1-in. x 11-in. The lengths are nearly always 12 ft. to 16 ft. with 40 to 50 per cent. of this 16 ft. A fair amount of scantling has also been required for the south American trade. This includes 2-in. x 3-in., 3-in. x 3-in. and 3-in. x 4-in., with occasionally some 3-in. x 6-in. and 3-in. x 9-in. A considerable quantity of 1-in. x 12-in. has also been going to South America, the price of a cargo depending largely upon the quantity of 1-in. x 12-in. included. A fair value for an assorted cargo of boards and scantling with 10 per cent. of 12-in. would be about $18 f.o.b. shipping port. This would be on an ordinary market. At present however, practically no sales are reported, there being very few enquiries out.

Good Demand from the West Indies

In the trade with the West Indies the demand is entirely for 1-in. pine and spruce of the ordinary run of Nova Scotia stock and spruce 10 ft. and up, 6 in. and up is easily sold at a value of from $15 to $16 f.o.b. while pine sells at a certain price for ten feet and up contents and another price for under ten feet contents, the values at present being about $20 for the larger stock and $14 for the smaller. The West Indian trade is fairly good, the only difficulty being to obtain tonnage. Freights are at about $6 per thousand, which is from $1 to $1.50 higher than a year ago.

In connection with the United States markets, delivered values are from $1.50 to $2.00 higher than a year ago. Freights are from 50c to $1 higher, the going freights at present being about $3.75 to Boston, $4.25 to Sound ports, and $4.75 to New York, for spruce or dry hemlock, proportionate rates being charged for green hemlock.

Practically the whole lumber market situation in Nova Scotia to-day hinges upon the freight rate question. Those who have followed it closely believe that no decline in freights can be expected for the remainder of the present season. The conviction is growing indeed, that next year will see the freights quite as high as they are to-day. An indication of the scarcity of tonnage is afforded from the fact that one vessel is only being loaded to-day with lumber for South America which was ordered last autumn. Last summer in fact, many vessels were available for which lumber cargoes could not be secured. This year the available vessels at some of the important ports could have been loaded five times over.

One of the difficulties which lumber shippers have to contend with in connection with the West Indian trade, aggravates the scarcity of tonnage. The Pickford and Black Steamship Company are not permitted by the government to load lumber below deck, the idea being to encourage the shipment of manufactured articles upon which the labor involved in production has been greater than is the case with lumber. The object is a satisfactory one for those who produce the other goods but it places a serious handicap upon the lumber trade with the West Indies at times like the present when tonnage is scarce.

Market Conditions and Prices in United States

The present price for hemlock delivered at New York is about $18 to $19 for 2-in. x 4-in. merchantable stock with a fair run of length. A year ago the same lumber was bringing $17.50 to $18.50. The demand in this line is strong for 10 ft. and 18 ft., also for 20 ft. There is a fair demand for 12 ft., while 14 ft. and 16 ft. are not desirable.

Hemlock boards are in strong demand, random being worth $19.50 to $20 at Boston. Last year the same stock was bringing $18. Random boards include 5 in. and up, 8 ft. and up, the greater part being 6 in. and up and 10 ft. and up.

Spruce slab lath 1⅜ in. are selling at about $3.75 to $3.85. A year ago they brought $3.40 to $3.50.

A large export trade is being done with United States ports, in spruce planks and studding. An assorted cargo of planks and studding will bring about $22 at Boston or Sound ports for a specification averaging about 15 ft., 35 to 40 per cent. being 8 in. and up wide. Last year a similar cargo would bring about $20. Such a cargo would include 2 inch x 4, 6, 7, 8, 9, 10 and 11 inch, 4 in. x 6 in. and 6 in. x 6 in.

The cut in Nova Scotia this year has been very difficult to estimate, but it is probably about the same as last year. The spring was exceptionally favorable for stream driving and very few of the drives were hung up. During the last week in June and the first two weeks in July, the weather was extremely dry and bush fires commenced to reach dangerous proportions. Fortunately, a general rain came in time to extinguish all the fires before any serious damage resulted.

The local demand for lumber in Nova Scotia is exceptionally strong, being probably better than it has ever been before. This is the result of extensive building operations. In Halifax alone it is estimated that building operations in progress and under contemplation total $3,000,000 in value.

Messrs. Homan & Puddington, New York, report under date of July 13th as follows: Our lumber market, generally speaking, is in excellent condition both from the sellers' and buyers' standpoint. Building is going on in the city and most of the surrounding country in good shape and barring politics, looks prosperous.

Spruce timber, plank and boards is in good demand, and for all desirable sizes good prices are being obtained—ranging from $21 to $27 per M. Hemlock 2 x 4 is selling fairly well in all 10, 16, 18 and 20 ft. lengths, while the intermediate sizes go hard at $16 to $17 per M. 1 x 2 furring, faced one side, is worth $22 to $23 per M.

Spruce side boards 10 ft. and up long, 6 inches and up wide to average 7 inches wide bring $20 to $21 per M., while those averaging only 6 inches won't bring over $19 per M.

Laths—Receipts are moderate, and sales were made at $3.75 to $3.80 per M.

Messrs. Chase, Talbot & Co., New York, report under date of July

15th as follows: The season is now sufficiently advanced to enable one to forecast the probabilities for fall trade in the metropolitan lumber market.

Some of the larger yard dealers have declined to pay prices demanded, and have resorted to the alternative of depleting yard stocks, which they carried through the winter, even to the extent of resawing, to provide necessary sizes. Those who have pursued this method declare they will not pay the price until forced to do so. Their anticipation of a sagging off in price during July and August, has not been realized, the mills being amply supplied with orders for August sawing. It is likely that we shall tire them out, and that the early fall will witness the demand for a considerable quantity of spruce.

Yard dealers admit that they are doing an active business, in fact, all that they can conveniently handle, and for the most part, find it difficult to take in stock, as fast as they make deliveries.

The yellow pine market continues firm and in consequence of excessive orders booked ahead, together with unprecedented floods throughout the southern belt, there is justification for a belief in the permanence of their prices.

West Virginia spruce holds firm at full list. Apparently, there is no abatement in the demand.

We quote spruce, 2 x 4, desirable lengths $23.50 to $24.00. 2 x 6, 2 x 8, 2 x 10, 4 x 6 and 4 x 8, fair run random lengths $25.00. 3 x 8 and 3 x 9, $25. 2 x 9, 2 x 10, and 2 x 12, or 3 x 9, 3 x 10, and 3 x 12, $26 to $27, according to lengths.

Recent quotations for eastern dimension spruce are practically on a par with the West Virginia list, which is $25; 8 in. and under, 20 ft. and under, $27; 10 in. and 12 in., 20 ft. and under.

Lath.—The trade has absorbed the arrivals at prices varying between $3.60 and $3.75.

Unwise Land Classification Scheme

American Forestry Association Protest Against Indiscriminate Listing of Agricultural Lands in National Forests

One of the most important actions taken by the directors of the American Forestry Association, who held their midsummer quarterly meeting in the White Mountains on July 17, 18 and 19, was the passage of a resolution protesting vigorously against the proposed amendment to the Agricultural Appropriation Bill, soon to be acted upon by the Senate, which provides that all lands in the national forests, "suitable and fit" for agriculture, must be classified and listed for settlement whether it is wise or unwise to remove them from public control. This resolution has been sent to each member of the Senate with a request for its careful attention.

The directors, with a number of guests, including state foresters, forestry instructors, state officials, timberland owners, paper and pulp company officials and a number of other prominent men, gathered at Plymouth, N.H. on the morning of July 17 and, through arrangements by Col. W. R. Brown, of the Berlin Mills Company, journeyed to North Woodstock in automobiles. The afternoon was spent in looking over the Lost River reserve, recently acquired by the Society for the Protection of New Hampshire Forests, and the members of the party climbed down the course of the Lost River for some distance among the mammoth boulders, into the caves they form, and viewed the remarkable scenic effects caused by some remote convulsion of nature, with wonder and delight. Here is a spot which, when the road to it is improved, will become the Mecca of almost every sight-seeing party going into the White Mountains.

There followed in the evening, at the Deer Park Hotel, a meeting participated in by the directors of the association, and under the auspices of the Society for the Protection of the New Hampshire Forests. Some three hundred people attended, many of them of national prominence.

W. R. Brown, president of the New Hampshire Forestry Commission, told about the progress of forestry in New Hampshire during the year; a paper by Montgomery Rollins, on the acquisition of Lost River was read; E. E. Woodbury told of the town's interest in the Lost River, and there were talks by Dr. Finley, ex-governers Quimby and Woodruff, Dr. Drinker, Dr. B. E. Fernow, of Toronto, P. S. Ridsdale, executive secretary of the American Forestry Association, and others.

The following day the entire party journeyed by automobile to Bretton Woods, where Thursday and Friday were spent in viewing the Crawford Notch reserves, and at several important meetings discussing forest problems and conditions of the day. The directors of the American Forestry Association held their sessions at the Mount Pleasant and the Crawford House.

Reports of the condition of the association were most satisfactory and showed that the membership is steadily growing, that the sphere of its influence is rapidly extending, and that it is now regarded as one of the most important organizations, for the good of the general public, in the country, and as such is receiving steadily increasing support and recognition.

At the fifth annual forestry conference meeting on the afternoon of July 18 there were represented the American Forestry Association, the Society for the Protection of New Hampshire Forests, the New Hampshire Timberland Owners' Association and the Association of North Eastern Foresters.

In the evening H. S. Bristol, superintendent of Woodlands for the Delaware and Hudson Railway Company, spoke on problems of forestry as they relate to the railway; Prof. Walter Mulford, of Cornell, discussed the prospects of forestry as a profession; Prof. W. C. O'Kane, of the New Hampshire State College, spoke on the present status and prospects of the gypsy moth and the brown tail moth in the state; George H. Wirt, chief forest inspector of Pennsylvania, gave an illustrated lecture on the management of state forests in Pennsylvania.

At the annual meeting of the Society for the Protection of New Hampshire Forests, held on the morning of July 19, reports were made on the progress of the society's work in the past year. In addition Herbert Welsh, of Philadelphia, spoke about the progress upon the Sunapee Forest Reservation, and Harris A. Reynolds, Secretary of the Massachusetts Forestry Association, told how he is organizing branch associations in that state.

The ever-interesting and vital question of the taxation of forests was discussed at the concluding meeting on Friday afternoon. Dr. B. E. Fernow spoke on the principles underlying the taxation of forests. Prof. F. R. Fairchild, of Yale, discussed the taxation of forests in America and abroad, and Prof. Charles J. Bullock, of Harvard, gave his ideas on practical plans for taxation in New Hampshire and Massachusetts. The other foresters and lumbermen present joined in the discussion, which, while it resulted in the enlightenment and instruction as to ways and means, of all who were present, did not reach any definite conclusion as to the best way to overcome existing difficulties.

In the evening, at the Crawford House, Philip W. Ayres, forester of the Society for the Protection of New Hampshire Forests, gave an illustrated address on the forests of the White Mountains.

Will Erect New Mill at South Bay

John E. Moore, St. John, N.B., has bought out the Canada Woodenware Company at South Bay, N.B., about five miles from St. John. He proposes to make a number of changes to the plant and to erect a modern sawmill near the pail factory. Building operations are to be started at once and it is expected that the plant will be completed and ready for operation early next spring. The equipment of the new mill will include a stock gang, band saw, and band resaw, twelve stave machines and about three heading machines. In addition to this the new plant will include a planing factory and in the course of a year, probably a box factory. The intention is to work up all the small stuff that has not formely been utilized. The plant is favorably located, being on the line of the C. P. R., five miles from St. John. It also has good water shipment facilities. The new plant will be installed by the St. John Iron Works.

New Log Mark for B. C. Lumbermen

The provincial government of B. C. have issued an entirely new system of private marks for lumbermen and they will cancel the old marks as fast as the new ones are given out. In order to put the new system into practice and see that it is practically enforced the department has despatched Inspector William Black on the government launch R. J. Skinner, with instructions to visit all lumber camps in the north. Captain Nye has also been despatched on a similar errand on the Launch Kiora.

The new system is designed to render less difficult the task of distinguishing the logs cut on the licenses, leases, crown grants, etc., and to show which logs are eligible for export and which are not. At present the larger lumber companies are cutting on all manner of grants, leases and licenses, and mark all their logs with the same mark, no matter from which source the logs come. This causes great confusion, as the royalties and privileges vary with the various forms of leases and licenses, and the department have to largely depend on the word of the companies' employees given on affidavit as to the origin of the various classes of logs.

By the new system of letters and numbers, it will be possible not only to know who is the owner of the timber, but also to tell at a glance whether it was cut under a timber license, a lease, an old crown grant, an intermediate crown grant or a new crown grant. For instance, if the code number of a lumber company was number 6, all of its logs cut under a license would have to be marked A 6; all cut under leasehold would be marked 6A; all under an old crown grant A 6 with a crescent mark under the letters; and all on intermediate crown grants A 6 with a bar under the letters.

The markings will have to be put on the timbers at the place where the logs are cut. In this way it is expected that disputes will be avoided.

Some Important Lineshafting Points

Problems Relating to the Driving Mechanism for Woodworking Plants — Practical Suggestions for Getting Satisfactory Results

By R. A. B.

One of the most important problems we have to contend with in wood-working plants is the lineshafting, which seems to have but little consideration. In large plants, where a great number of machines are in service, shafting should be centre driven, not "end driven." One of the largest and most modern sash and door plants in this country has in the last six months twisted off two of their lineshafts. The shafting on each floor is end driven, which shows what an important point it is to install the main drive properly.

If any machine operator of long experience, or, for that matter, of short experience, were asked what occasioned the greater number of accidents in wood-working plants and what caused most delays, he would be sure to reply, "the line-shafting."

For a shaft to break by crystallization from bending, or to be torn loose by winding belts, to have pulleys or couplings come loose, is a common cause of detention and expense. The couplings are mentioned last, although if ranked as to the amount of detention and trouble they cause, they should have been named first. But whether it be couplings, pulleys, hangers or shafting, the trouble is generally with the main line. If we were to ask a manufacturer who makes shafting, whether there is any special difficulty in the way of having it safe from derangement or accident, he will answer, "Certainly not." Granting this, we have either a paradox or very bad practice, and as a paradox is rare in mechanics, the latter is the safer conclusion.

Shafts for transmitting speed and power are the oldest of mechanical appliances, and should, as we would suppose for this reason, be among the most perfect; but this is a claim to which they can by no means pretend. The great diversity of the plans for couplings, hangers and bearings by the different makers, attests the fact that the manufacture of shafting is by no means a perfected art.

There are but few places where lineshafting is so severely tried as in wood-working plants. The usually small diameter, with high speed, wide belts and the heavy duty that it generally has to perform, are conditions more or less avoided in other manufacturing establishments. Machines, when suddenly started, offer a resistance in proportion to the power employed in driving them. Measured by this rule, there are but few machines in common use so heavy to start and causing so great a strain upon the shafting, as planing machines and circular saws. There are, of course, many others that require as much power, but to include all conditions, such as the speed of the belts and the usual means of shifting them, with the sudden stopping which often occurs, there is hardly a parallel among manufacturing machinery.

A large planing machine or saw that consumes 8 to 10 h.p. to drive it, will have the belts shifted instantly from the loose to the driving pulley, and the only reason the shafting does not give way is that such machines are generally weakly driven, and the belts slip until the machine gets into motion. The same thing, in effect, occurs in overfeeding saws, so that the shafting is continually subjected to a succession of torsional strains that will soon search out bad jobs in fitting couplings or other parts.

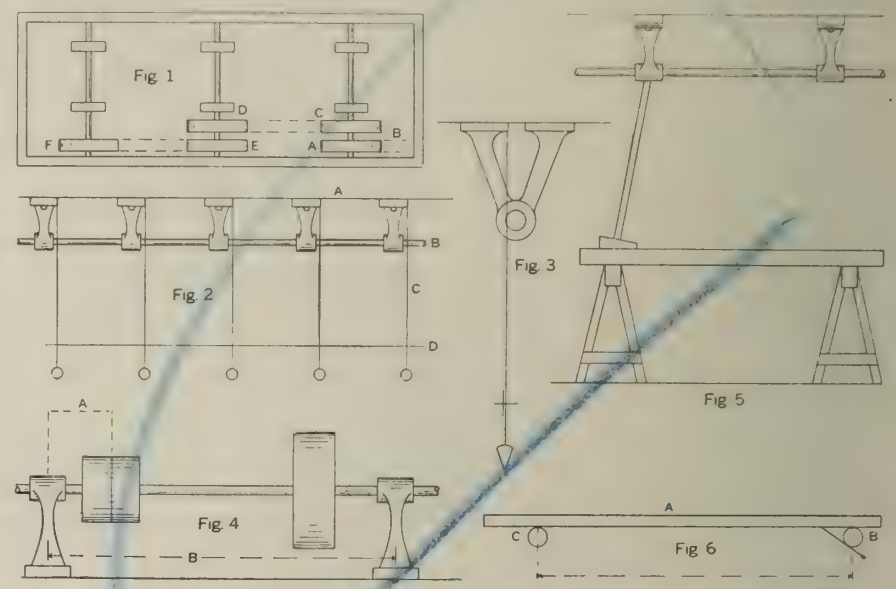
In preparing plans for a wood-working mill the shafting should, for reasons already given, go across the building whenever practicable. By connecting from one line to the other at one side of the room, the whole power is not transmitted through couplings, as in the case of one continuous shaft to drive all the machinery. The work is also divided more evenly throughout the several lines, and this does away with the supposed necessity of having the lineshafting of various diameters, which prevents the interchange of pulleys from one shaft to another, and often leads to expense and trouble. The first section of shafting carrying the main driving pulleys should have a diameter equal to one-fifth the width of the main driving belt, and be supported at each side of the main pulley; to make a rule, this section should not be more than twenty diameters long between bearings.

Fig. 1 shows a good arrangement of lineshafting for a mill 50 x 150 ft., with three cross-lines of shafting. A is the main driving pulley; B, belt to engine; C and D, second driving pulleys; E and F, third driving pulleys. Having the first or driving section 6 ft. long, and four additional sections in each line 10 ft. long, is a good arrangement for a mill of the dimensions given.

The advantages gained by this plan over that of having a continuous line or a single line running the other way of the building are, first, only a part of the power is transmitted through the couplings. Second, the speed of the different lines can be varied, and, to some extent, accommodate machines of different classes, which can be arranged with this view. Third, a part of the shafting can be stopped for repairs, or to put on belts or pulleys without stopping the entire plant; in other words, about two-thirds of the plant may be kept going in such cases. Fourth, with this arrangement the shafting can be uniform throughout, except the first or driving sections. Fifth, the machines stand lengthwise in the building, and the course of the stock is in this direction, as it should be, for it is no uncommon thing to find planing and other machines driven with twist belts.

To accomplish this, when shafting is placed the other way, it should be from 2½ to 3 in., which are the best sizes; 2½-in. shafts are as small as any should be, and they should not, without some important reason, exceed 3 in. in diameter. A line of 2½-in. shafting will run safely and well at 300 r.p.m. or a 3-in. line will run 250 r.p.m., if the bearings are properly made and it is kept in line. Pulleys should be true and balanced perfectly, no matter what their speed may be. It is never known where pulleys may have to be used, and the only safe rule is to have all pulleys carefully balanced, no matter what the speed may be at which they run.

As to couplings, they should be adjustable or compressive, not keyed or wedged, as it may be called. Adjustable couplings are now



Examples of Good Practice in Erecting and Adjusting Hangers, Shafting, Counters and Pulleys

generally used for lineshafting, and there is certainly no place where they are more required than in wood-working plants, where there is such a continual adding of machines.

Hangers that support the lineshafting should always have their bearings pivoted and adjustable vertically. The heavy loads of lumber that are piled on upper floors depress them between posts, and a lineshaft requires leveling up often. If the bearings have a vertical adjustment in the hanger frames, and are moved by screws, as they should be, it is a small matter to go along the line and level it. A hundred feet of shafting may be adjusted in this manner in an hour, if all large belts are thrown off to relieve it from strain, and the shafting is straight and true. The operation is so simple and generally understood that it needs little explanation.

Shafting is not liable to get out of line horizontally, unless from the strain of belts; it is, however, well to line up as often as twice a year, to be sure that all is right. It has been in times past a common thing to allow a shaft to run as long as it would go without adjusting, then stop the works for a day or two to "line up," which is unnecessary and only a loss of time. A shaft may be leveled by almost any one when the hangers are properly made, and it may be done at noon, or after stopping in the evening, without interfering with working time.

To line a shaft horizontally is but little trouble if the bearings or hangers can be moved in that direction. Suspended hangers should have the bolt holes slotted for an inch or more for movement, and post hangers should have movable bearings that permit side adjustment. Assuming that there is some means of moving the shaft horizontally, a good plan of adjusting it is by suspending a number of plumb lines that will bear against one side of the shaft and reach

down low enough to be sighted from the floor, as shown in Figs. 2 and 3.

A is the ceiling, to which the hangers are bolted; B, the lineshaft; C, plumb lines resting against the shaft near the bearings; D, a horizontal line stretched below the shaft, or, for greater accuracy, a strong line may be stretched about 5 ft. from the floor, as at D, to gauge the plumb lines from. This lower line, at the beginning, should set within ⅛-in. of the two plumb lines at the ends, and the rest can then be adjusted to the same position by moving the bearings; or the end bearings can also be adjusted, as the case may require. A ball of strong packing thread and half a dozen or more old bolt nuts for the plumb lines, make an outfit, and the job can be executed with but little expense or time, if the hangers are properly made.

Work of this class must be to a great extent a matter of judgment. Any one who depends wholly upon what he may have seen done or has been instructed, will not be as successful in millwrighting as if he proceeds boldly, using his own judgment as to plans, and considering the work thoroughly before beginning it.

There are many ways of adjusting lineshafting, some of them tedious and expensive. The one suggested is the most simple that can be given, and is accurate enough for all practical purposes. If a machine operator, or even a regular millwright, were to be set at a job to test his judgment and abilities, there is perhaps none that could be selected better than erecting a countershaft. The ways of erecting, all of which may produce the same result in the end, are so various as to render it difficult to give rules that will be generally applicable. The advantages of the different plans can only be tested by the time required to do the work, assuming, of course, that it is to be properly done in all cases. It may require two, and often three, men a whole day to put up a countershaft, which in another case will be put up in two hours by one man, assisted only in holding and lifting.

In erecting a countershaft, first to be determined is the position of the machine to be driven, and whether the belts will be clear. When a lineshaft is crowded with pulleys it often requires great care to place the countershafts so the belts will not interfere with each other. It is no uncommon thing for a shaft to be put up and then discover that it interferes with others on the opposite side of the lineshaft. Care in starting is the main point, not only in putting up shafts, but in most other mechanical operations that involve calculations or accurate measurements.

Beginning with the hanger plates, these should be of good sound wood, long enough to reach from two to four joist, as the weight of the shaft and belting may require. Their thickness, as an approximate rule, should be one-fifth the drop of the hanger. When the joists are of hemlock, or harder wood, and 3 inches or more thick, almost any kind of shafting can be hung with safety on wood screws, or lag screws, as they are sometimes called, passing through the hanger plate and screwed directly into the joist. These screws should be of good size, not less than ⅝-in. in diameter in any case, and long enough to pass into the joist a distance at least equal to the thickness of the hanger plate. A plate 3 in. thick requires, with cast iron washers, screws that are 7 in. long; if one in each joist, ⅞-in. diameter; if two in each joist, ¾-in.; or ⅝-in. will do for ordinary countershafts.

Having the hanger plates ready, next mount the shaft in the hangers and invert them on the floor, as Fig. 4. After setting the shaft to see that the bearings are not cramped and the hangers stand fair on their base, measure between the bolt holes accurately; or, what is better, cut a short strip of wood to the length between the centres, marked B in the figure.

If the shaft is to be placed to suit some pulley on the line shaft, measure from centre of hanger next to the loose pulley, the distance to centre between the tight and loose pulleys; this should also be marked on the stick, as the base for the position of the shaft. We will term it driving belt line, marked B in Fig. 4. This belt line must then be determined and scribed on the joist; it is easily found from a pulley, or by measuring from a wall or girder that crosses the lineshaft at right angles.

Next, placing the measuring stick, set out at each end for the bolts or lag screws that are to hold the hanger plates, bore the hanger plates and screw them up at one end, but not hard against the joist. Leave one-half inch or more for packing when levelling up. Then set the plates at right angles across the joist and mark the position of joists so as to bore through the plates for the other screws, which can be done by swinging the plates around and without taking them down. Again set the plates across the joist as accurately as possible by means of a carpenter's steel square, and mark the place for holes in joist for the remaining wood screws. In screwing up the plates they can be brought level by furrowing down on their top, with pieces of wood split in two or notched to accommodate the wood screws.

To mount the hangers, if they have pivot bearings, as all ought to have, bore through the hanger plate for one bolt by measurement. No great accuracy is required unless the shaft has to come laterally to a particular line, which is seldom the case. Screw up one hanger with a through bolt, then remove pulleys from shaft, put it in the hangers, propping the loose one with a brace resting on the floor or stage, as shown in Fig. 5.

For the next operation procure a pole or strip of wood, as A, Fig. 6, long enough to reach from countershaft to lineshaft at B, and extend to countershaft at C. By moving alternately from one end of the countershaft to the other, and driving the loose hanger to adjust it, a parallel is obtained much truer than by lines and measurement, and in one-tenth the time.

The pole can be marked at the centres of countershaft at each trial until the ends correspond. Then bore the remaining holes for the hanger bolts, put pulleys on shaft, and mount the whole in place. Level the shaft by means of a spirit level or a plumb line alongside the pulleys, which, if they are at all true, will be found accurate enough. The work is now finished, and there is a question as to which is the greatest labor, to erect a shaft or to describe the operation. With a good pair of trestles at hand, lag screws and hanger plates ready, an ordinary countershaft for belts 3 to 6 in. wide should be put up in from one to two hours' time, by one man and an assistant. The time of erecting and the accuracy with which a shaft can be set, as well as the facility with which it can be kept in line, depend greatly upon how the hangers are made.

All bearings in wood-working establishments should be pivoted. The depression of floors which takes place is continually altering the bearings in a greater or less degree, and if rigid they are spoiled by the least change. Such judgment is not required at low speeds, but when shafts carrying heavy strained belts have a speed of 750 r.p.m. or more, every precaution must be observed to have them run without heating. If the bearings are pivoted and arranged to be adjusted vertically, it is but little trouble to keep shafts level. The bolt holes in the hanger plate, if slotted to allow for horizontal adjustment, will answer for pendant hangers, without having the bearings movable laterally in the brackets. The transverse strength of the brackets should be sufficient to break the belts; if not, there is always danger of the whole being torn down by winding belts, and, as these are generally much stronger than are used in other shops, the hangers should be made accordingly.—The Woodworker.

Systematic Methods in U.S. Consular Office

During a recent visit to the city of Quebec the Editor of the Canada Lumberman had the pleasure of visiting the office of Mr. Gebhart Willrich, United States Consul, at that city. Among his other duties Mr. Willrich pays particular attention to the collection and preparation of statistics relating to the lumber trade. On account of the extensive exports of lumber to the United States from the city of Quebec this work is of much importance and the information which Mr. Willrich secures is of great interest to lumbermen of Quebec Province. His reports are published in the Daily Consular & Trade Reports, which are issued by the Bureau of Manufactures at Washington. In order to handle such an extensive work, Mr. Willrich has devised and put into effect a unique and practical system of filing all his correspondence and statistics. By means of this system he has at his finger ends, not only all available recent information, but information regarding trade in previous years for a number of years back. Mr. Willrich takes great pride in this feature of his work and it was a distinct pleasure to the editor of the Canada Lumberman to have the interesting system adopted by Mr. Willrich explained to him in detail.

The Tool Room

In these days all up-to-date mills recognize the value of a fully equipped tool room placed in the hands of a really competent man, who is made answerable for the proper equipment and perfect condition of all cutting tools; and there is no doubt when this plan is properly carried out, the result is a larger output of better quality, with a considerable saving in power and time. It cannot be too frequently urged that the tool room is really the most important department in a mill, and any reasonable outlay in this connection is soon amply repaid. In addition to a full equipment of tools for repairs, it will be found to effect a considerable saving in time and pay well in the end to provide each machine with a duplicate set of saws, cutters or chisels, as the case may be. In this case each machine should be numbered and have a peg rack or small cupboard to itself in the tool room, and as the saw becomes dull all the operator has to do is to take it to the tool room for resharpening, and obtain a fresh saw from his peg, thus practically saving a large amount of stoppages of the machines.—Timber Trades Journal.

Death of a Prominent Ottawa Lumberman

The Late John Gilmour, Ottawa

The death occurred on July 15th last of Mr. John Gilmour, President of the well-known lumber firm of Gilmour & Hughson, of Hull, Que. At the time of his death, Mr. Gilmour was residing at his summer house at Gatineau Mills, Que. The late Mr. Gilmour came of a family which had been intimately connected with the lumber business of the Ottawa Valley for many years. His father, Mr. J. G. Gilmour, was born at South Walto, Mearns, Renfrewshire, and was one of the pioneers of the lumber industry in Canada. He was succeeded by his son, who not only continued the business with success, but extended it, until it became one of the most important manufacturing concerns in the Ottawa Valley. The firm now have a number of important sawmills, chief among which may be mentioned those at Trenton, Hull, and on the North Nation and Blanche Rivers in Quebec Province. At the time of his death Mr. Gilmour was in his sixty-third year. He is survived by a widow and six sons.

R. Laidlaw Company's Successful Picnic

A good base ball game, numerous races and a jolly good time were the features of the annual picnic of the R. Laidlaw Lumber Company, of Toronto, which was held on Saturday, June 20th last, at Queenston Heights, Ont. About 600 of the employees, their families and friends journeyed over to the historic Canadian battle ground on board the steamers Chicora, and Cayuga. Many well-known lumbermen, of Toronto, who are connected with the firm, took part, among them being Charlie McBeth, manager of the west-end yard; Mr. A. E. Eckardt, sales manager; Mr. Jack Storey, Mr. W. C. Irvine, of Gibson, MacCormick & Irvine, Toronto Junction, and a number of other well-known lumbermen. Upon the arrival of the boats at Queenston Heights. The first number on the pro- picnicers to Queenston Heights. The first number on the programme was a ball game, between the East-end and Spadina Yards and the North and West end yards, after an interesting struggle in which the individual members of the teams distinguished themselves greately, the East end and Spadina men were declared the victors.

After lunch, Mr. Alex. Gordon took charge of the proceedings. Alex. is known as one of the best managers of sports in Ontario and he added fresh laurels to the many he has already gained by the way he conducted the games. The races were many and varied, some of them being very funny. One young lady claimed that Mr. Gordon had not acted fairly with her in starting, and she forthwith challenged him to a 100 yards race. Although getting on in years and incidentally in weight, Mr. Gordon took up the challenge, and bravely started out on the long grind. The young lady was too good for him, however, and beat him out about 10 yards.

After the games Mr. Eckardt and Mr. Gordon distributed the prizes which consisted of an excellent assortment, including umbrellas, fishing rods and other attractive articles. The winners of the ladies' races were presented with hand bags and hammered brass ware.

The return trip, which was made on the eight o'clock boat, was enjoyed by all, although, owing to the large crowd on board an excellent musical programme, which had been arranged for the occasion, could not be given.

Two pipers in full Higland costume accompanied the picnicers and enlivened the occasion with many Scotch airs. The company's yards and factories in Toronto were closed for the day.

New Technical Periodical

Steam Machinery, a monthly magazine of men, machinery and methods, intended especially for the contractor, the railroad-builder and the excavator, will commence publication before the end of this year.

The magazine will contain departments devoted exclusively to each of the above, and will publish therein articles of interest to those engaged in these various lines. Contributions of a technical or amusing nature are invited on anything pertaining to the above. All articles submitted must be in typescript and accompanied by a stamped addressed envelope for return in case of non-acceptance. All articles submitted will be accepted or rejected within a month from the date of receipt.

Accepted articles will be paid for immediately after publication, not at a word rate, but at a rate determined by their interest and value and by the originality of the thought contained in them. The magazine will be edited, for the Clyde Iron Works of Duluth, (Minn.), by Charles H. Mackintosh, to whom all articles should be submitted.

R. A. Rastall Appointed Vicegerent for Eastern Canada

Mr. R. A. Rastall, the well-known Toronto lumber dealer, has been appointed Vicegerent Snark of the Concatenated Order of Hoo-Hoo for Eastern Cahada. Mr. Rastall is widely known to the lumber trade in Toronto, and in fact throughout Ontario, he is senior partner in the firm of R. A. Rastall Company, Mr. W. Boake being his associate partner.

Mr. Rastall is a hard worker and will no doubt be a great factor in promoting the welfare of the order in Ontario. It is earnestly hoped that every member of Hoo-Hoo throughout Ontario will do all in his power to assist Mr. Rastall.

Personal News and Trade Notes

H. Parker, Parkerville, Ont., has erected a new sawmill with a capacity of about 10,000 feet per day. Parkerville is about thirteen miles from Bracebridge, Ont.

Mr. S. W. Rogers, of the forestry staff of James W. Sewall, forester and surveyor, Old Town, Maine, has gone into Northern Maine on a short exploration trip. Mr. Rogers has lately returned from a cruising trip of several months in North Carolina.

The Meaford Lumber Company, of Meaford, Ont., are a comparatively new wholesale lumber firm, having started business the first of this year, specializing in hardwoods and hemlock. The manager, Mr. R. C. Jamieson, is a lumberman of twenty-six years standing, having for the past nine years been in the employ of the Seaman Kent Company at Meaford.

Mr. John H. Marr, of the Govan Sawmills, Scotland, is on a business visit to Canada. He arrived in Montreal, and has visited several mills in the Maritime Provinces with the object of securing supplies of ends for making packing cases. There is a shortage of this description of timber in Scotland, and Mr. Marr is desirous of securing a continuous supply.

Mr. R. H. Campbell, Director of the Forestry Branch of the Department of the Interior, has left on a trip to Western Canada, where he will investigate the progress of work on the establishment of look-out towers and telephone systems on forest reserves, which was commenced this year to permit the foresters to get the earliest information of fires and to take immediate steps to check them.

A. C. Todd Moves to Edmonton

Meaford, Ont., is to lose an industry that has been operating there for over thirty years. In the spring floods of the past season the tannery and shoe-pack factory of A. C. Todd were completely swept away, and Mr. Todd has decided to make the west his base of future operations. In South Edmonton a new company has been formed capitalized at $100,000, with Mr. Todd as president and general manager, and by November the many users of "Polar Bear" Shoepacks and the oil-tanned leather which has made the name of Todd so well known throughout the country, will be able to procure these brands once more. The new factory will be on a far bigger scale, built to take care of the rapidly increasing business in the West.

A Splendid Financial Statement

The financial statement of the Lumber Mutual Fire Insurance Company, of Boston, for the year ending June 30, 1912, shows them to be in a flourishing condition. There is a net cash surplus shown of $525,546.87, with total assets of $1,960,875.75. Dividends paid to policy holders amounted to $84,502.19 and losses to $66,500.85. The gain in the net cash surplus was $53,558.95. The total losses paid to policy holders to date amounted to $959,588.74, and total dividends to date are $883,668.22.

The sawmill of the Dorchester Lumber Company, St. Malachie, Que., valued at $35,000, was destroyed by fire on July 23rd last. Mr. L. Lacasse, the manager, states that the loss is covered by insurance, and that the mill will be rebuilt at once.

The plant of the Western Paper Company, which was recently constructed at New Westminster, B.C., at a cost of $250,000, and which started operation on first of June, has been forced to run night and day since its opening. Even now, with an output of fifteen tons daily, the demand exceeds the supply.

THE WOODWORKER

System vs No System in Furniture Factories

By Julius Bradley

The subject of system in the furniture factory is one that will bear discussion, for in a good many plants it is very conspicuous by its absence, in spite of the fact that competition is becoming keener every day and the only sure way to meet it is to have a system throughout the factory whereby each workman will have a certain part to do and do it in such way that a record of it may be had. These records are very valuable to the firm if they are obtained in such way as to be reliable.

The difference between a factory with a good system and one with no system at all, can be plainly seen by one who is familiar with furniture factories in just passing through; in fact, evidence of it can be seen in the office, before entering the factory. It has been the writer's privilege to have considerable experience in both kinds of factories, and I will endeavor to explain some of the advantages of the one, as well as point out the disadvantages of the other.

In a good many plants where system is a lost art, the cause is not in the factory foreman or the heads of the different departments, but is the fault of a manager who is either trying to do more than a manager's duties, by going out in the factory and directing the work in detail, or has not sufficient confidence in his foreman, and no judgment as to what can be turned out in a given time.

Now, as to the manager directing the details of the work, this is most prevalent in plants that are always "balled up," The manager goes through the plant probably twice a day, and very often gets the foreman in tow, and the outcome is nothing more or less than an excursion of fault-finding. If they come across a machine that is temporarily out of commission for repairs, there is a big powwow about it, and the manager is apparently dumfounded to think an operator would be so careless as to let a machine get to a stage where it needed repairs. If a man should be found repairing a belt, there is an investigation started at once, and nine times out of ten the operator will blame the belt-shifter or find some other imaginary cause for the belt breaking, when in reality it was only a worn-out lace, whereupon the manager opens up on the foreman for not seeing that the cause was remedied before the damage was done.

After making his rounds and disposing of his surplus sarcasm and abuse, he inquires about certain jobs, and if found to be sidetracked in order to rush some other job, he gives orders for certain men to start on them at once, regardless of what state other work is left in. After a trip of this kind it keeps the formean busy to get things righted and the work moving by the time the manager is due again.

There are really two kinds of these managers who butt in, the one kind that goes to the men and gives orders, and the other that worries the life out of the foreman, and neither one of them ever gets the results he is looking for. The simple reason is, they go about it in the wrong way. They don't give the foreman the consideration they should. They, as a rule, load him up with more than he can properly attend to, and he has not time left to plan his work. They forget that the factory end of the business requires brains as well as the office, and in not a few cases the lack of system in the factory is caused either by neglect or lack of brains in the office.

I have known managers to promise delivery of goods by a certain date, when they knew, or at least ought to have known, that delivery at the date they promised was an utter impossibility. Then, to try and make good their promise, they would go out into the factory and upset all the foreman's calculations in trying to get the order out. Is there any wonder that there are so many furniture factories to-day that are utterly void of system?

It is absolutely necessary for the office to lay the foundation for the system of the factory, more especially if the keeping of cost is to be of any use—and all up-to-date furniture factories know, or should know, what it costs to manufacture their product. It is very important, where special work is done, that the factory foreman be advised of what orders come in, and if it be a staple line he should be given a stock list at regular intervals. What I mean by stock list is a list of the orders issued to the factory; also, what goods are in process and what are in stock. This enables the factory foreman to get the different jobs that are wanted moving along without any interruption of other work, or at least without monopolizing the whole plant, as is sometimes the case with a rush order in the factory that never knows how the stock really is until the shipper boss reports "all gone," and then everything has to stand aside toll the "all gone" is rushed through. This state of affairs can be easily overcome if the office does its part in making and maintaining a system, and unless the office does do its part, it is next to impossible for the factory foreman to inaugurate any kind of a system that would accomplish the desired results.

We all know that the records of cost are very important and should be as nearly correct as possible, and the better the system in the factory the more reliable the records of cost will be. It is not a difficult matter for the workman to give a comparatively correct account of his day's work, if he is able to complete his part on a job without having to change on some other work. Changing from one job to another is altogether too prevalent in a good many shops, and its effect on the output, and also the reliability of the records, is most usually underestimated.

How often do we see the manager or superintendent come around and want a certain job at once, and in order to get it a number of machines have to be changed and other jobs let stand till the one wanted is put through, and after it is completed it is left stand around till long after the time it would have been ready had it went through in the regular way. This sort of thing is often far-reaching in its effect, and in a way that the manager never considered, especially if one part of the plant is to supply another—and that is really the way it should be—so we can readily see that to change the order of things in one part of the shop has its effect on the other, not only in disorganizing things, but also on the output, for time spen tin unnecessary changing is time wasted, and only adds to the cost of production.

There are times that changing machines when in the middle of a job is unavoidable. If changes are made only in case of absolute necessity, the interruption caused can be overcome by the foreman. for in the best of regulated plants there ar occasions when such has to be done. The foreman who is capable of regulating his department to the point of system, has also the ability to cope with an emergency in the form of a rush order, providing they are not so frequent as to be continually disorganizing the whole department.

A great many managers have the rush habit; that is, every time they go out into the factory they want some job rushed, not because it is wanted ahead of other jobs, but they seem to think it is a sort of stimulus, while in reality it has the opposite effect, more so with the men than with the foreman. That very significant word "rush" is like everything else, alright in its place, but when it is overworked by the manager or superintendent, becomes repulsive and loses its significance, and the manager himself becomes a sort of a joke and loses the respect and esteem of his employees.—The Wood-Worker.

Making Moldings from Saw Mill Edgings, without Ripping to Width

You ask about the new way of making stock moldings out of saw mill edgings, without ripping them to width. We have two five-headed molders, also three of the old kind—we make some molding—made by a well-known builder of wood-working machinery.

The new way especially is to make moldings out of saw mill edgings, without ripping the stock, as they come from the mill in all widths, in the same place. In the first place, it costs too much to rip them, as you have a worthless edging left, sometimes in two or more pieces, which will cost more to get through the "hog" than the piece saved by ripping is worth.

The only way to do this is with the five-headed molder, with what I call "hogging" knives on the first top head, in addition to the jointer knives, that will size the stock down to width and thickness, and sticking the mold on the second top head. Have heads with milled bits, that can be set up and sharpened on a pedestal grinder, the same as side heads are done at present, jointing them on the machine with a formed stone while in full speed, so as to have all four or six knives cutting.

Of course, this calls for a molder that has a pull-off or a pull-out arbor, for both the top and bottom heads, so as to enable the operator to take off and put on heads for different molds with very little trouble; in fact, quicker than to change the old way, saying nothing about having four or six knives cutting instead of one or two. These molders are the only ones I know of that are equipped to put on and take off different heads on both the top and bottom spindles. Top and bottom heads have pull-off box as well as pull-out arbor on all three heads, so the molder man can change heads quicker than to set up the old way. By using heads with milled bits, it is no trouble to keep the mold the same shape as long as the bits last; and, being made of high-speed steel, they will last longer than any common knife.

Just to see how much they would stand, have run a 1¼ x 4 down to one piece of 13/16, quarter-round, without checking up to the feed. Would have done more, but the "hogging" knives were not

any wider than for a 4-in. strip. They will stand all the feed you can get the men to handle. Another good thing for the five-headed molder is, in sticking heavy hardwood molds you can take part of the cut on the first top head and finish up on the second one.

We still have the old four-sided slotted head, but it is a self-centering one, which is as essential as on a side head on the fast-feed matchers, as of old; in fact, it is as necessary to have the square head, as well as the others, to take care of detail or odd work, which you have more or less, and I believe the coming way of making stock moldings will be with machines and heads as described above.

The man who wants to stick moldings with faster feed will have to use heads with more knives, and joint them to do smooth work. The only way I see to do this is to have heads to change instead of changing bits—heads to be kept up in the tool room.—C. W. Heath in the Wood-Worker.

A Little Talk on Designing Details

By Chas. Cloukey

One of the most important things about mill work now-a-days is the correct and economical detailing of the work to be made. So much of it is special material, specified by architects, that the stock patterns of the mill cannot be used, making it necessary to use the details of the architect, if he has shirked this part of his duties, as he often does.

It is not always a bad thing for the mill that the architect fails to furnish full-sized or even scale details, for it is frequently the

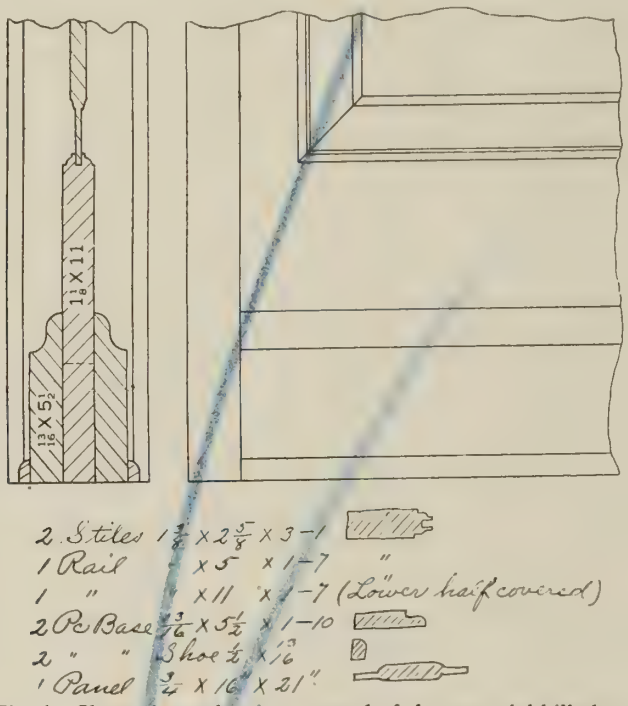


Fig. 1—Shows just what is expected of the material billed out

case that the factory draughsman is able to make up a set of details which looks as well or better than the designs of the architect, and at the same time costs much less on account of the mill man knowing what he has in both knives and lumber.

One of the things to be avoided in designing details is the expense of making molder and shaper knives, unless it is absolutely necessary, for this is one of the acute expenses of the custom or odd work shop. Another thing to be kept in mind in designing and detailing is to keep within the standard sizes as much as possible, except in the hardwoods, where it generally takes about an inch in width to straighten up the stock for long jambs, casings, baseboards and the like. One can get a 5¼-in. jamb out of a 6-in. board if it is not too crooked, but to get a full 6-in. head casing requires an 8-in. board. If the lumber to be used is quarter-sawed, it is liable to be badly curved edgewise in the drying, and so show a great deal more waste in getting out long stuff than the flat-grained lumber.

Perhaps the function of details is as important in getting out the stock or cutting as it is in finishing or putting the work together, but the value of details in this respect depends largely upon the way the cutting bills are made, and the means furnished the yard man and the cutter to identify the items and to show the extent to which defects in the lumber may be used.

It is surely flying in the face of Providence now-a-days to bill out so many pieces so thick, so wide and so long without any qualifying remarks, unless the stuff has to be absolutely clear. And when specifying the grade from which the pieces are to be cut it is well to add any pertinent information which the bill will carry without becoming confused.

Fig. 1 is intended to illustrate a class of details which show both the yard man and the cutter, as well as all subsequent workmen, just what is expected of the material billed out. It shows that the bottom rail of this panel work is covered on both sides at the bottom for half of its width, but that the top half must be clear on both sides. It shows that two pieces of base may have defects on one side which will not work out in the ogee at the top, and that a small defect on the face side at the bottom edge will be covered by the shoe at the floor. It shows that the panel frame has a solid sticking, and therefore must be clear on the face edges, and that the panel shows both sides and is raised on both sides. The sketches in the bill serve to identify each piece as a constituent part of the

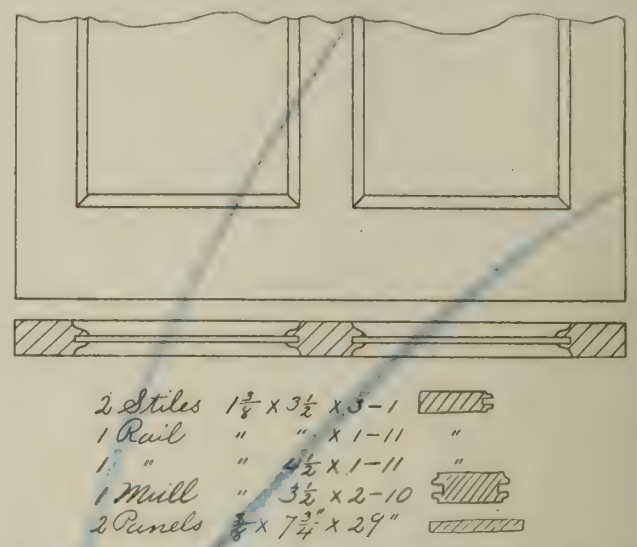


Fig. 2—Cross-section and part elevation of cupboard door

panel work shown, and any workman of a little experience will soon see the significance of using just as poor lumber as he is able instead of the best he can find.

Of course, I am not saying that the yard man and cutter should both spend valuable time in trying to see just how mean stuff they can work into a good job, but the point is that they might spend valuable time in trying to find clear stuff to make the 11-in. bottom rails when the proper stuff lay ready to their hands if they only knew that half of it was to be covered.

I have had very proper stuff sent back to the mill by the owner of a fine residence because he did not understand that the defects in the pieces were to be covered by other members of the finish. The same pieces were sent out the second time, when the owner was out, and, of course, he never saw the defects in them again.

In Fig. 2 is shown a cross-section and partial elevation of a cupboard door, with the piece bill below. Generally speaking, it is not necessary to detail this class of work in the mill, as the men became accustomed to a shop style, and it is only necessary to mention if the work is for paint or for oil finish, and the style of sticking re-

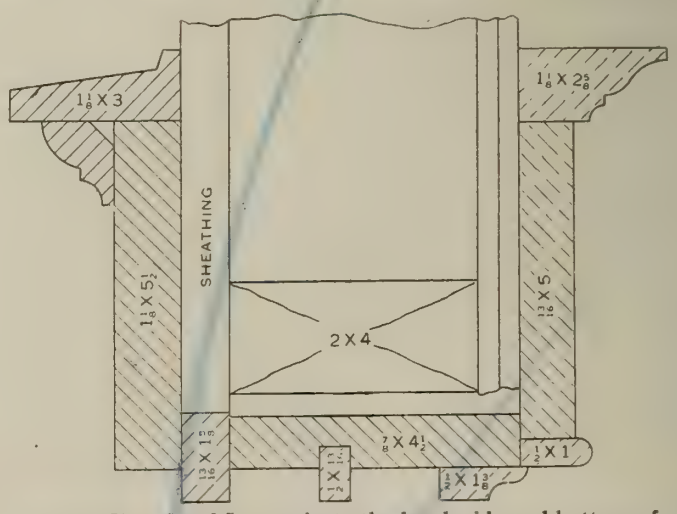


Fig. 3—This, with Figs. 4 and 5, constitute the head, side and bottom of a window frame for a frame building

quired. If the style is special and the sticking of a detailed pattern, then a drawing something like the figure is a real help.

A great deal can be accomplished through the little rough sketches following the items on the cutting bills, and if they are made with some pains, will show the style of sticking, whether the pieces are for stiles and rails or millions, and whether grooved, rabbeted or stuck square like the frames for cupboard fronts.

Bill marked "see detail" should be accompanied by a copy of the detail, and if it is expedient that more than one department use the same detail at the same time, there should be trackings made of it and furnished to each department, so that the work may go forward simultaneously to its completion.

Some foremen give out detached details when it is just as easy to give the group in their respective positions, and so give each work-

man an insight into the way the work is put together, and teach them to read working drawings. It is an easy step from the full-sized details to the smaller scale drawings, and then on down to the blueprint plans. If every man about a planing mill could read plans correctly, none of them would be any poorer workmen than they are, and a whole lot of them would be more efficient and thereby more valuable to the company and to themselves.

Figs. 3, 4 and 5 are given as an example of the grouping of details, and constitute the head, side and bottom of a window frame

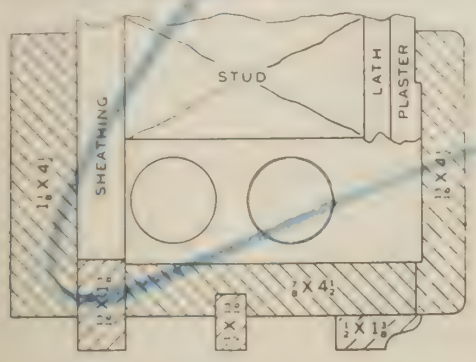


Fig 4

for a frame building. The details tell this and all the other information necessary, except the size of the window and the class of material from which the frame is to be cut.

It will be noted that the inside trim is given a different shading than that of the frame proper, and is not billed out at the time of making the frame. The idea of drawing it in with the frame is to show the opening as a whole and the relation each piece bears to its neighbors, as well as the way the frame members into the wall of the building. This is a great help in billing out the interior finish and in matching up the work at any future time. As in the example of Fig. 1, the detail shows the parts exposed, so that the pieces required need come up to the specified grade only on the exposed parts.

Fig. 6 shows one of a class of details in which it is good practice to number or letter the different members. These are really "sub-details" or the detailed details, and occur where it is necessary to make up the detail proper with a set of separate members. The same class includes veneered doors, windows, and all kinds of laminated work. The sample in the figure is a cross-section of a large bent molding, such as is used in the curves of church ceilings and groins. The several members are run separately on the molder and then bent and nailed in place one upon the other. It will be seen by the detail that only the edges of most of the members need b clear, so that the whole is strong enough to bend and nail.

The high price of clear lumber of any kind makes it almost prohibitive language to talk about clear finish for the outside of a building or for any work to be covered with paint. For this reason we exercise all the ingenuity at our command to conceal the defects in finish lumber, and to show a clear face, no matter what the back may contain.

The changing or altering of details is another of the mill man's resources, of no mean value when worked with tact as well as in-

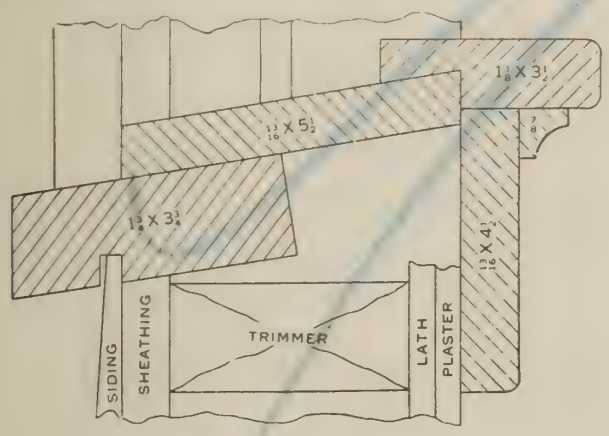


Fig. 5

genuity. In the first place, if the mill superintendent will take pains to keep the architect in a good humor and help him out of some of the corners he is bound to find himself in occasionally, he can nearly always secure permission to make minor changes in details to correspond with stock material or knives on hand. It is a rare case indeed where the owner would ever see or know the difference in detail, and, in case he did, would as likely as not prefer the change.

Perhaps the most perplexing thing about details is the system, or rather lack of system, for filing details after they have been worked through a job. They may be collected and rolled up with the blueprints and filed in that manner, if the plans are not called in by the architect, but in the odd-work mill there are a multitude of details accumulating as the weeks go by, and are of such a nature as to preclude filing with the bills. About the only practical method I know of is to follow the same plan as in filing bills by the vertical alphabetical system, except that the index and folders should be much larger than for the cutting bills, and then it would be necessary to fold up the larger details into a compact compass, which would be neatly contained in the folder without obscuring the index.

Of course, all details should be marked with the name of the customer, the serial number of the order and the sheet number of the cutting bill. This will at once identify them and enable one to find the details from the cutting bill or to find the cutting bill from

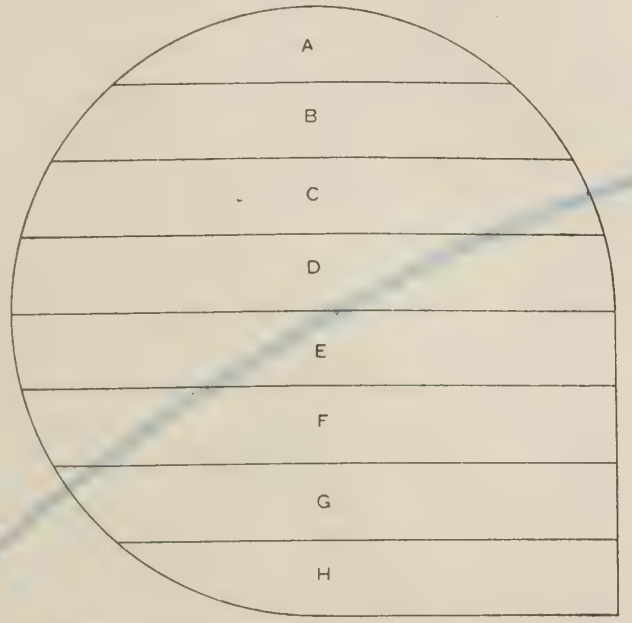


Fig. 6—One of a class of details in which it is good practice to letter or number the different members

the detail sheet. It also enables the office to find the cost of any particular detailed piece of work, provided the shop is working a cost system.

When details for odd work are small enough, they should be put directly on the cutting bill, which at once solves the question of preserving the same for future reference.—The Wood-Worker.

Veneer Factory Costs

"Veneer Factory Costs" was the title of a paper read by F. C. Rice at a recent annual meeting of the National Veneer and Panel Manufacturers' Association.

The chief element of "veneer factory costs," he said, is the labor and logs, but the other expenditures must not be overlooked. To obtain the cost of labor is naturally a comparatively simple matter, the time being kept by the foreman, who turns it into the office every morning, together with the drag sawyer's report with the different kinds of woods, also the clipper's report, which shows the time spent on each order, and the number of pieces of veneer and their dimensions handled during the day. These reports are carefully checked by the bookkeeper and entered on the monthly statement of the cost of logs, labor involved and the selling price of veneer manufactured per day. At the end of the month these particulars are totalled and at the same time show a brief statement that will be of real value as a daily guilde.

We think it desirable wherever possible to introduce the piece work system of paying labor, the opportunities for "holding back" on the output being so great and the capacities of the different men varying so widely that payment by results is the only just method for both workman and employer. If a fair rate is adopted and notice given that no cut will be made on account of increased production, which will be an inducement for the men to put forth their best efforts, and the more this can be worked out the easier it will be to arrive at the actual cost figures. The cost of veneer varies on the different kinds of woods used by the manufacturer. We should be able to manufacture maple and beech veneers for less money than our neighbor in the south, and they, on the other hand, manufacture gum veneer much cheaper than we can. For instance, it makes some difference whether you have to cut logs that measure on an average of 20 inches in diameter or if you have logs 20 feet in diameter, which I imagine some of our gum neighbors must have, judging from the prices some of them sell their product at. It seems to me that the manufacturing cost of veneer depends entirely on the location of the plant and kinds of wood used.

The labor and material cost having been obtained, are now added together to give the total "manufacturing cost." The factory expense and overhead burden are next to be considered. If figures are obtainable for previous periods the estimate of these costs may

be based thereon, but the result obtainable should be carefully compared with actual expenditures to obtain accurate estimates, such as repairs and depreciation of plant, involving capital expenditure and superintendence.

In our plant it would be practically impossible to arrive at the actual costs, as we are cutting all kinds of wood, and thick and thin stock from the same logs, and the only figures I am in position to give are these: For the labor, factory expense an doverhead burden it costs us $60 per day to operate the plant, and up to the last three months the plant had never paid. However, we have since, with a little hard work and much good fortune, been able to make $1,000 profit from the business.

Locating and Erecting Wood-Working Plants

By A. T. D.

The question of location requires much consideration. Many large manufacturing plants are now locating in small cities. There are advantages and disadvantages in this. Many towns are offering substantial bonuses to manufacturers, also building sites free of charge. It is needless to say that many of these towns furnish most excellent shipping facilities, and when one locates near a large city there is very little, if any, difference in incoming freight. In small cities labor is cheaper and the workmen are more contented. It must, however, be admitted that skilled labor is more easily obtained on short notice in large cities.

The prime motive in the construction of a new factory plant should be efficiency, and this certainly should be the principal consideration in working out the scheme. Much attention should be given to the possible efficiency of machinery and labor-saving devices, but these fall short of their possibilities unless they are made integral and co-ordinated features of a plan of production that has for its object the minimum handling of material (whether raw, in process, or finished), the maximum substitution of mechanical operations for human labor, and the multiplication of time-saving devices.

The factors most largely affecting the greatest economy in production and marketing are, of course, location with respect to supplies of labor and raw material, power transportation, market, permanence of both methods and materials of construction, and means for protecting and preserving the plant when once completed.

It is important that as much floor space as possible should be visible at all times, hence all angles should be aboided in favor of the plain rectangle. The same considerations of visibility and the avoidance of unnecessary walking or elevator riding, argue for the single-floored structure as against multi-floored buildings.

In designing a factory plant, the most important consideration is the natude of the product and the process involved in its manufacture. "A building or collection of buildings designed to house certain productive activities, is not likely to prove at all efficient if used for a widely different purpose. It is true that many existing plants are operating under just such indefensible conditions, but that proves nothing as to bigger profits under better conditions."

It may be well to state that passages in the factory must be wide enough to permit the passage of two trucks in the aisles, and for the side-tracking of trucks around machines. Keep stock on trucks, not on the floor. A very good scheme is for the superintendent to count the trucks on the floors of the different departments, recording this count, together with the kind of material, lot number, etc., that each truck contains. In our factory every truck bears a number; the number of the truck can therefore be readily recorded on the truck tally. A good truck system involves the retention of the material on the trucks, and with as little hauling of empties as possible, an important feature, and one deserving attention in every wood-working plant.

Lumber should be handled only once from car to factory. The yard should be so tracked that original trucks on which the lumber is piled from the car can be taken to the kiln, from there to the lumber sheds, etc. It is a good plan to lay out the lumber yard in such a way that all the trucks have a slight grade towards the mill, the lowest point being the foot of the incline leading to the cut-off department.

A well-known piano company has an ideal method of handling lumber, of which it usually carries over 1,000,000 feet. The storage sheds and the kilns are laid out in such manner that the lumber is handled but once. It is loaded from the car into the trucks. These trucks, moving on special trackage, are run into the storage sheds, where the ends of the lumber are coated with a preparation that prevents splitting or cracking. From the storage sheds the lumber is run into the drying and seasoning kilns, on the same truck on which it was first loaded, then into the factory. Having an immense stock to draw from reduces the chances of cracking and warping to a minimum.

A lumber yard must be complete and well equipped to economically store and handle lumber. The expense involved in laying out a yard and installing the necessary tracks and pavements is more than compensated for by the saving in the handling of the stock, Direct such a question to a manufacturer who is handling his stock by an up-to-date system, and you will, I am certain ,not find one who regrets the investment and does not find it profitable.

The most modern, and perhaps the best, style of dry kiln is the moist-air condensing kiln. Continuous kilns are satisfactory if properly handled, but involve the problem of having more humidity at one end of the chamber than there is at the other end. As the lumber gets dryer and advances to the out end, the amount of humidity required is less; as the reader can readily see, the proposition of having air in one end of a room much more moist than at the other end, is quite a difficult one, and if the lumber is not carefully watched, checking and honeycombing are quite likely to result.

Waste is sold by some manufacturers for from $1 to $3 per load. The writer visited a very large factory in a neighboring state a few weeks ago, and was astonished to find that it sells its waste lumber at (if I remember correctly) $1.40 per load, which includes delivery. It may be safe to state that 80 per cent. of lumber waste is burned at the plant or sold as firewood. Most of this waste can be turned into some marketable form and profits realized therefrom. Many manufacturers can make use of considerable of this waste in their business if they will but give the question some study. We have found several places in our plant where we can work up a good portion of waste to good advantage.

A poorly-constructed shaving and dust-collector system, or an inefficient fan, lessens the profits of any wood-working concern. The loss by air friction in a badly-designed collector system is enormous. When installing a system of this kind it certainly pays to install the best obtainable. The question of power required to operate the blower is also of the utmost importance. Slow-speed, low-power exhaust fans are now being introduced, and it is claimed that this type of machine will handle more material with less power and at less speed, than the old-style exhausters.

Factory floors are often responsible for much discomfort. The wood floor is the only one that is conducive to comfort, since wood is a poor conductor of heat. Hard maple flooring is commonly used in factories. The best floors for factories are constructed of 3-in. yellow pine, grooved on both sides and with separate tongues.. The separate tongue makes it possible to take up and remove or repair the floor with very little waste. This yellow pine floor is next covered with a sound-deadener of tarred paper, and on top of this is placed the surfacing of ¾-in. hard maple. Considerable attention should be paid to the condition of the floors. Slippery floors constitute an element of danger, especially in conjunction with unguarded machinery. And even where a slippery floor is not in proximity to an unguarded machine, it may yet cause a bad fall, resulting in serious injury. This is likely to be the case where workmen are engaged in carrying heavy material.

Pure air is one of the chief elements of industrial efficiency, as it is of individual health and happiness. The chief factors in air are temperature and humidity. Heat, and particularly heat combined with excessive humidity, is the one condition in air that has been proved beyond a doubt to be universally a cause of discomfort, inefficiency and disease. It may interest some of the readers of this paper to learn that common air is a fluid composed mainly of two gases, in certain proportions, namely, oxygen as twenty and nitrogen as eighty parts in a hundred, with a minute addition of carbonic acid gas. Such is air in its pure and right state, and such is the state in which we require it for respiration. When it is loaded with any admixture of a different kind, or its natural proportions are in any way deranged, it cannot be breathed without producing injurious results. We also require what it apt to be a large quantity of this element of healthy existence. We were taught at the grammar schools that our breath, when we draw it in, consists of the ingredients formerly mentioned, but that it is in a very different state when we part with

it, and that in place of the oxygen which we consume, we exhale an equal volume of carbonic acid gas. Carbonic acid gas in a larger proportion than that in which it is found in the atmosphere is noxious. The volume of it exhaled by the lungs will do not harm, but if breathed out into a close room it will render the air unfit for being again breathed. Illustration: Suppose an individual be shut up in an air-tight box. Each breath he emits throws a certain quantity of carbonic acid gas into the air, filling the box. The air is thus vitiated, and every successive inspiration is composed of worse and worse materials, till at length the oxygen is so far exhausted that it is insufficient for the support of life. He would then become sensible to great difficulty in breathing, and in a little time longer he would die.

Contrast your feelings and your effectiveness on a close, hot and muggy day. One works listlessly, and half accomplishes the task undertaken. This I know has been my experience. The depression and faintness from which workmen in many factories suffer, after being confined in a poorly ventilated room, is clearly traceable to vitiated air. Odors of glue, oils, finishing material, etc., render the air foul and stagnant, and often give rise to violent diseases among the operatives. The proper ventilation of factories consists in the warming and introducing of fresh air from without, and the discharge of unwholesome air from within. If manufacturers would provide efficient means for ventilating, the cost of construction would be repaid in better health of the workmen and the natural increase of labor.

Factories ought freely to admit the sunlight. How true it is that diseases which have baffled the skill of physicians have been known to yield when patients were removed from dark rooms to sunlight. Air is necessary for the first inspiration of our lives, but the purity and healthfulness of the atmosphere depends upon the rays of the sun. Natural light should permeate the whole shop during all hours at which it prevails out of doors, and not only work benches and machines, but stairways and all passages should be light. The degree of light should be reckoned according to the proportion between the area of the walls and the area of the windows. The area of the windows should occupy about one-third the wall area. Skylights are generally undesirable on account of their admitting so much direct sunlight, also on account of their liability to breakage of glass and obstruction by snow. Statistics show that the greatest number of accidents occur during the months of diminishing light. Dirty windows and insufficient artificial illumination often make conditions much worse than they need be. Many progressive manufacturers whitewash the walls of their factories once a year. This is a great improvement and saves much on the cost of artificial illumination.

We know that without solar light there can be no proper vegetable growth. It is equally necessary for the beauty and perfection of animal development. Does not the reader realize that the human is just as dependent for energy upon the sun's rays and streams of pure, invigorating air? Turn on the sun, Mr. Manufacturer. Let in the air, and your men will be keyed up to full capacity. Remember that gloom is the burial place of efficiency.—The Wood-Worker.

Saw Mills in India

In India there is no lack of timber or of sawmills. The former is supplied chiefly by the government forests, each of which is in charge of a conservator and a number of colored assistants, whose business it is to prevent the illegal felling of trees. These "forest officers" are exceedingly well paid; and if their lives are lonely and unhealthy, those who manage to cheat an early grave, by escaping jungle fever, intermittent fever, cholera, and other ills to which the Anglo-Indian flesh is heir, after about thirty years' service are entitled to a fat pension, which they enjoy at home, says a contributor to an American publication. It may be added that there is no country in the world in which the government timber is so well conserved as in India. The sawmills are of two kinds—those run by Europeans and those run by natives. In the first named an Englishmen acts as manager, his assistants being natives; but in the large Calcutta and Bombay mills the engineer and one or two of his assistants also are white men, the rest of the staff being made up of colored assistants, as they are called. Some native lumber magnates employ English managers, for if they have to pay more for their services they recognize that by securing good work they at least get value for their money. So slack is the colored manager and so wasteful is he with the lubricating oil, coal and other stores, that the wonder is the mill manager contrives to show a profit.

When an accident or a fire occurs in a European or a native mill, the colored employees, whether half-castes or natives, are almost certain to be useless. It may be added that in the case of a fire in a native mill the loss is not likely to be very great, for the proprietor's curiously false economy has prompted him to invest in a second-hand boiler, which probably has been condemned by the government boiler inspector, while it is probable that the engine, the machinery, and the other accessories are not worth much more than the price of scrap iron. The wonder is that they do not give out the first time they are tried. In some European mills, on the other hand, the most up-to-date appliances are to be found. At the same time it must be confessed that in many of these establishments labor-saving devices do not find favor with the white manager, who has been so many years in India that his thoughts have become Indianized. As to the natives in his employ, they hate the idea of an innovation which tends to reduce the number of hands figuring on the pay sheet.

Luckily for the sawmill man, there is a strong demand for timber, particularly in Calcutta, Bombay and Madras, where the shipbuilding industry flourishes. "Up country," in the stations where the railway shops are situated, it is also in request, unless the superintendent of the shops finds it to his advantage to obtain the lumber direct from the forest and to have it sawn on the premises. Yet, in spite of all his troubles, the sawmill proprietor usually manages to make a decent living, even if he does not put away rupees for the proverbial rainy day. It sometimes happens that the native lumberman, hoping against hope, endeavors to win over the superintendent, by means of a bribe or with cajolery. In the former case he waylays him and asks point blank what amount will alter his decision, or begs his acceptance of a box of cheroots, at the bottom of which a roll of bank-notes is to be found. But if he is afraid of getting his neck broken, or of offering too small a bribe, he composes a letter in the quaintest English imaginable, believing fully that it will warm the heart of his oppressor. Fortunately for the "luckri wallah," he does not depend for his livelihood upon the orders which railway storekeepers can put in his direction; tenders from the various government building departments await him, and the country swarms with contractors, most of whom can be of use to him. And, luckily, freight rates are low, so that if as a special inducement, he finds it expedient to quote a figure which includes free delivery at a distant point, there still remains a fair margin of profit. It may be added that in securing a contract there sometimes is a good deal of hanky-panky about the tenders—and that the tenderer is not the only person who benefits.

Wages vary a good deal, according to the "district" in which the business is carried on. In Calcutta, a comparatively expensive place, a native will expect at least 15 rupees ($5) a month, but in the north and south two-thirds of this sum will satisfy him. The boys who are employed to oil the machinery and to sweep up the sawdust receive the equivalent of $1.50 a month, and the "durwan" (door-keeper), whose business is to keep a check upon all pilfering, but who invariably dies rich, is paid 9 rupees ($3) a month. Evidently the post in question is worth paying for, since the successful candidate is always ready to handsomely reward any person who is instrumental in obtaining it for him. The native clerks get from 20 to 50 rupees a month, according to their qualifications, and managers think themselves lucky if pay day brings them 150 rupees—$50. The English managers of the large and important sawmills receive up to $30 a week, while a house and one or two servants usually are thrown in. Although no sawmill employee is well paid, Providence tempers the wind to the shown lamb, by arranging matters so that living is cheap. The native mechanic is passing rich with his 10 rupees a month, and the colored manager can live like a fighting cock on thirty. The European manager himself can do pretty well on a small sum, and as to the 1,000-rupee man—he is a miniature millionaire.—The Wood-Worker.

How Should Knives in Round Cylinders be Ground?

There are, of course, at least two answers to that question. Some remove the knives every time grinding is necessary, while the majority of us prefer to grind right in the head. The latter way is unquestionably the better, for more reasons than one.

In the first place, a great deal of time is lost in removing the knives every time you want to sharpen them. And, although you may have an extra set on hand that you can insert, you have to go through the performance of setting each knife, and we all know that accuracy is very essential in order to get each knife to make its share of the cut.

Furthermore, in placing the thin knives on the automatic grinder, they are clamped and undergo a strain that is relieved when taken off the grinder bar. Now, then, by placing them in the cutterhead they are again clamped, but by a different method, and the strain put upon them forces them to take a different shape than when on the automatic grinder bar. The effect of this is obvious. Your knife is forced to take a different position, and if you run the jointer over it while the head is revolving you will find that some parts of the knife have been touched, while others have not. Then what is the conclusion? Your knives are ground crookedly. There is only one remedy, and that is, grind your knives when in the clamped position in the cutterhead. You will find that less of the knife is ground away by this method. Your knives will last longer. And last, but not least, you will have each knife making its share of the cut, and the finish of your stock is better.—Berlin Quality.

This 1911 Model of the

Linderman Automatic Dovetail Glue Jointer

Makes a Tapering Wedge Dovetail Glue Joint

A Glue Joint that proved by the technical test made at the Purdue University to be stronger than the flat or "V" joint or the natural wood. Its use then gives the positive assurance of the best results obtainable.

TO make a Glue Joint as strong as the natural wood it is necessary for the wood fibre by **close contact** and by **adhesive** to be knit together substantially as well as nature binds its wood cells. Warm lumber—warm glue—and a warm room gives the adhesive an opportunity to enter the pores of the wood—but absolutely perfect and effective pressure the entire length of the joint must be exerted to insure fibre contact—and the escaping of the glue to the surface of the lumber does not necessarily force the glue to enter the pores of the wood.

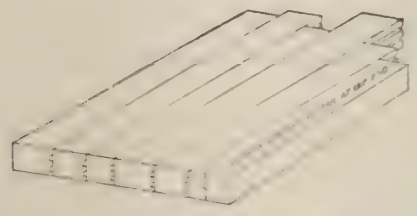
The basic reasons for the extra strength of the Linderman Wedge Dovetail Joint can be stated briefly as follows :—

1st. Due to the shape of the joint—50 per cent. to 100 per cent. more glue and fibre surface.

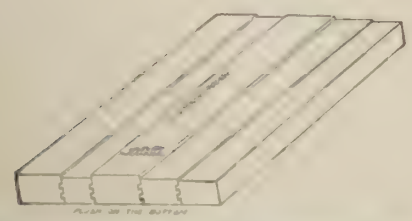
2nd. The close fit of the sides of the dovetail form a pocket for the glue, preventing its escape, while the tongue and groove are gradually progressing to a fit—forcing, not merely permitting, the glue to enter the fibre.

3rd. The rub joint effect—as the tongue and groove wedge "home," that combs the fibre in the same direction, permitting a matted fibre union.

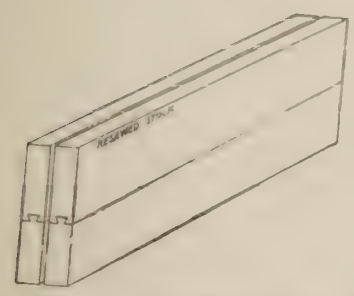
Canadian Linderman



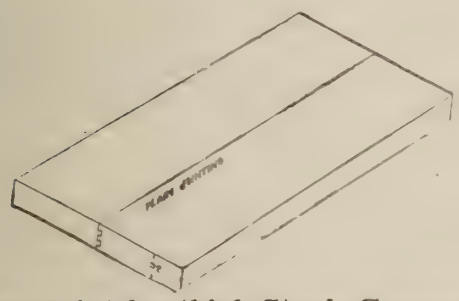
Any Uneveness in Length Appears at One End



Any Uneveness in Thickness Appears on the Top



Two or More Dovetails Can Be Cut For Re-sawing



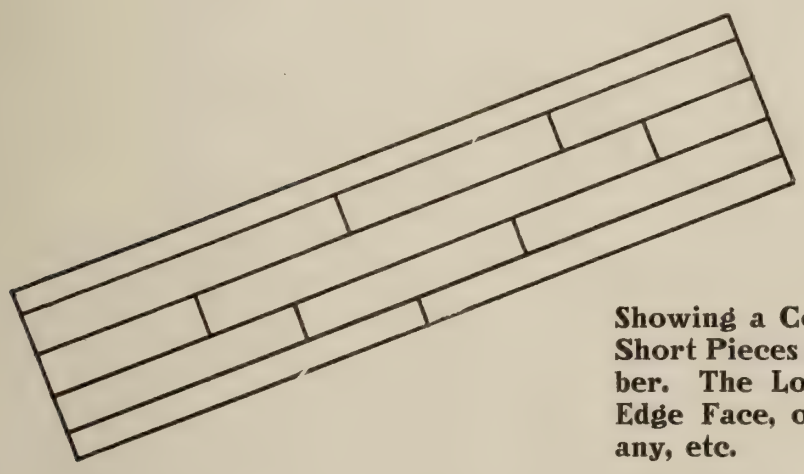
Plain Joint for thick Stock, Cores, etc.

What the Linderman Automatic Dovetail Glue Jointer Will Do For You

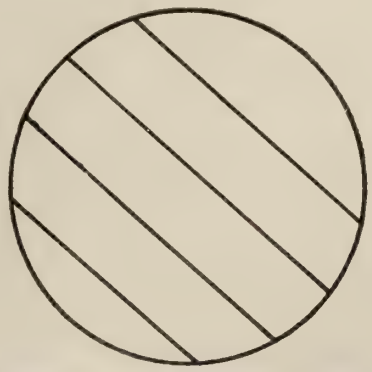
For the lumber manufacturers one of the most discouraging propositions is the disposing of narrow widths and short length stock so as to make a profit on it. Many manufacturers have found that by the use of the Linderman Automatic Dovetail Glue Jointer they are enabled to build up this narrow width into wide lumber and use it for their own products such as the manufacture of boxes, shelving, partition boards, and so forth, and quite a few of them who have no manufacturing plant sell them at a price varying from $2 to $8 per thousand more than what they had been heretofore able to obtain for the narrow widths.

For the box manufacturer there is no more profitable proposition than that of installing a Linderman machine and buying all narrow width, short length lumber and mill culls and converting them into one-piece ends, sides, tops and bottoms, at an average cost of from 50 to 75 cents per thousand board feet. This will enable the box manufacturer to buy his lumber from $2 to $5 a thousand cheaper and to put it into a package that is much superior to the ordinary box. In the 1911 Model of the Linderman Dovetailer, due to the tapering wedge attachment, it is possible for the box manufacturer to produce thinner stock which will make a lighter box, enabling him to compete with the substitute package.

We will be very glad indeed to send samples of the Linderman Joint and give further details to anyone who desires them.



Showing a Core Made From Short Pieces and Waste Lumber. The Long Strip Being Edge Face, of Oak, Mahogany, etc.



Heading for Barrels, Casks, Tubs and Cases

Co., Limited

WORKS AT

WOODSTOCK, ONT.
MUSKEGON, MICH.

The Retail Dealer and His Problems

Good Advice Regarding Stocks—Importance of Correct Tallies

A Frank Talk With the Dealers

One of the strongest attractions—if not the strongest of all—for a retail yard is the general knowledge that if anything is needed in the line of extra odds and ends of material it can be found in that particular yard. This is true, also, not only in the lumber business, but others as well. When once a store in the town gets the reputation of generally having what a customer calls for, people will get the habit of going there and doing most, if not all, of their trading. Just so is it with a lumber yard. Now, in saying this I didn't mean to infer so much that it is the size of the stock that draws, as it is the variety of the articles it keeps on hand. Of course, it is an advantage to have a large stock with its long lengths and unusual sizes of joists and timber. But a yard trade is not wholly in the handling of this class of stock. It is only at some special season that the trade calls for these, while every day in the year you are selling a good many of other items in small lots, and it is this smaller class of business that counts up fast in the profits of the yard, and no retailer can afford to ignore and neglect paying the attention it warrants.

Some men don't fancy this class of trade, they prefer to go after bigger game. They would rather land a bill of $500 and make only five per cent. paper profits on it, than to sell a hundred dollars' worth in small dribs and make a real profit of twenty-five per cent., for a bill sold on such a margin is a sale at an actual loss, while the smaller trade is clear velvet and the greater part of it also is for the cash at the time of sale. The smaller trade requires, however, a specially close attention to its manifold details. There may not be the fun and the excitement about it as in the larger bill trade, but as I have said, it is the paying end of the business. And, as a whole, where a yard has a good small trade it generally gets its share of the bills, too, and more of them are apt to be non-competitive than otherwise, for if a customer likes your treatment of him in his smaller trading he will be inclined to give you the preference in figuring, and like as not tell you to do the best you can and he won't go anywhere else. A consummation devoutly to be desired by every lumber dealer.

Learn the Requirements of Your Trade

This is another way of saying, attend closely to the little things and the larger ones will take care of themselves. You all know what it is to have a man come to the yard and ask for something that you have not and do not keep in stock, and the consequent feeling you have in seeing him go away, and thus losing a sale. Every young dealer has more or less of this experience, according as is his knowledge of what his trade needs, and often this is one of his chief worries, especially if he is only a new arrival in the town and has not had the time to become acquainted with the particular wants of that community. It takes several years of experience in the trade to find out just what is required for even the ordinary country town, and the young dealer has to dig this up for himself. It is a good plan when first coming in a town to note down everything that is asked for that you don't have in stock. It is a good idea, too, to form this habit whether you are a young or an old dealer. And if an article is asked for several times it is a good sign that it is in demand and there might be a chance to work up a trade in it.

I got on to this trick early in my own yard experience, and whenever I first went into a new place I discovered a good deal of variation in the requirements of different communities. What I usually handled of stock in one locality was not being used in another. And if it was all the same to me I always endeavored to conform to what had been customary. As the country grew, however, I tried to keep pace with the development of its wants and to anticipate what I judged would be needed to correspond with certain things. I didn't always wait till such things were asked for, but got them in and they created the demand for them.

Keep an Assortment of Hardware

It is within the lumberman's province to look ahead and form his ideas as to what people will be likely to want, because of certain changes that may have come. It is these changes that has caused such a variation in the character of our mixed stocks. The late years of the farmer's prosperity has caused many a dealer to handle stock he had never seen until he made the first shipment of it. I presume that a few years ago there were few dealers in the country towns who had ever seen oak or maple flooring, except in a floor, until they have gotten some in on a special order to fill the requirements of a bill.

I well remember the time when I began to have inquiries for prices of hardwood lumber. And after I had turned away several customers I made up my mind that there was going to be a good deal of repairing to be done and I might as well have that trade as the hardware men who kept hardwood in wagon stock only. So I made out a list, after careful inquiry as to the probable kinds and sizes that would be needed and found a place where I could get it, and from that time on, and ever since, I have always kept more or less of a stock of hardwood. I know there are many dealers who don't think it worth while to bother with, because of the irregular demand for it, and then again there are so many sizes and lengths called for, but notwithstanding all this whenever one wants a piece of hardwood he wants it bad and nothing else will do in its place.

It is one of these little things, too, that I have before mentioned that goes to make up the attractive power of a yard, and no matter if one wanting something of the kind is no friend of yours, if he knows you have got what he urgently needs and can't get it anywhere else in the town he is going to come and get it. It don't take much money to carry a small selected stock of hardwood and there is a good profit in it if you know how to sell it. I got on to the trick of selling it by noticing how the hardware men sold the stock they carried. It would be foolish to quote it by the thousand feet. Sell it by the piece. A certain price for the best and straightest pieces, and another for those that are defective or crooked. In this way no trouble is had in disposing of the poorer pieces.

If wood culverts are being used in the locality, it requires not much urging to get the supervisors to use oak plank. It costs but little more in price and its greater wear and durability will speak for themselves. You can in this way get your clear oak in the same car, and besides at a lower price. You save the local freight from the near-by wholesale point when you are ordering it in small lots. And another thing you can sell all the local wagon maker needs at a lower price than he can ship it in locally.

If you have not got a power saw in your yard, nor in the town, get a lot of your common stuff ripped into 1 x 1, 1 x 2, 1 x 3, 2 x 2 and 2 x 3 sizes. They will do it for you at the mill for a trifle more. You may think you won't sell enough of these sizes to bother with, but you will be surprised to see how well they sell, as soon as people know that you have them. It is the idea of getting what they think they want that catches them.

Make the Most of Stock

I was struck by a remark made to me the other day by one of the most expert lumbermen in the city. Said he: "Any lumber dealer now who sells lumber as he gets it don't know his business." This was putting it rather strong, I thought, but as it was in the line of my own opinion I had no argument with him on that score. I have never seen the time since I had been running a yard for three or four years that I didn't skim more or less cream off a shipment of stock before it went into pile. The farmers and the carpenters taught me that trick. When I stood by and saw them sorting over and picking out the best, and bearing down the safety valve of my temper, it gradually came to my mind that I was the one to do all this sorting over beforehand. And when I arrived at this decision and began sorting out myself and charging the price for cream, I noticed an increase in my percentage of profit for the year, and I stopped using the fool argument that I sold lumber as I received it.

There are too many dealers who are selling grades instead of lumber, and they wonder why it is and how can it be that this and that party can sell a bill at lower prices than it can be bought and paid for.

I was in a country meat market last winter, and being from the city, I was curious to know the prices of the different cuts of meat, and I found out that they were about one-half what we have to pay in the city. But, of course, there was a difference through an absence of distinction. A steak was a steak, whether it came from the steak portions of the critter or from off the neck. Sirloin and porterhouse were the same price, and double the amount was sold as such as there is in the carcass. People wanted all steak, and as long as it was cut like a steak they were satisfied and paid accordingly.

A farmer takes a bunch of fat cattle to market and they are sold for what they will grade, and he takes it as a matter of course, for he expects it. But when he goes into his home meat shop he is as liable to get his porterhouse up in the rump as he is to get the real thing. He pays his 15 cents a pound and thinks the butcher is making more money out of selling than he is, but the fact is, if the butcher

sold his meat strictly on grade and just as he bought it he would have to charge Mr. Farmer a good deal more for a real porterhouse steak.

A lumber dealer is a good deal like the town butcher in this respect. If he sells his lumber out in small quantities according to the same grading as he buys it he will be in a similar case with the butcher who would sell a carcass out and give his customers the real cuts they called for. After you read this, just step in the meat market next time you are passing and see if the butcher won't verify what I say. If he tells you the facts you will know that I have given you the straight of it. He may though not be inclined to give the secrets of his business away. Just as you would feel, perhaps, if he came to your yard and quizzed you about the unknown in your business.

Now I will return and talk about the relation between "cream skimming" and the "driblet" trade in your every day business. First of all I want to disabuse your mind of any notion you may have formed that I don't advise giving a man what he pays for. This is just the very thing that I am aiming at. Give a customer what he pays for and no more. The fact is, though, in the retail lumber business, people generally want more than this, and hence their propensity to demand the privilege of sorting over your piles. When customers come for a few pieces of anything in lumber, no matter what it is, naturally they want it for some particular purpose which is usually of a nature that will admit of no defects. They want good common stuff, but without any knots. Now, instead of going to the common piles, take them to a rack in the shed where you have all these selections, which, if they were mixed up in the pile from whence you took them you would quote a price at so much per thousand. But now you must specialize them at so much a piece.

Never mind what they say about how you bought it. You don't tell a carpenter that he should not pick out a six-inch board from common and use it for a door or window jamb where his specifications call for "B" select. Neither do you feel like telling the farmer to lay aside the top of his hay stack when he is hauling hay to sell in the town. In other words, no man likes to have another tell him how to run his business. Probably you may think this will apply to me. What I say, however, is of a suggested character, and you may do as you like about acting on it.

Selling Wide Boards

In my later experience I occasionally bought a car of all widths, No. 2 and No. 3 boards, so that I could get some wide stock out of them. These I would lay away and charge for each board what it was worth when I sold it. If a man wanted one that was better than the others, he would pay me a C Select price for it, and why not? Wide boards are mighty scarce now, and when nothing but a wide board will do for the purpose needed its value is increased thereby. When I was watching the operations in the cypress sawmill plant at Caryville this last April I noticed that the wide boards were handled by themselves. They were beautiful looking stock and if you want any of them you will have to handle more money for them than for those of narrower widths. And yet both came out of the same tree.

I am aware of the fact that there is not much picking nowadays, and yet I have had but little trouble in getting all my select common out of the No. 1 grade. This grade of select was practically unknown when I was running a country yard, but as it is quoted in the lists of the northern pine mills, I presume some of the yards that are handling northern stock keep it right along. Here in the city it is the best of all the money making items in the yard.

Select Common Very Useful

I was in a yard the other day whose principal stock is southern pine. And no other dimension is handled at all, but I noticed they had their piles of select common, as usual. A good deal of this grade is used in the construction of porches and in other places where the framing is exposed and painted. There are many things that a farmer needs such stock for, such as hay racks, stock tanks, hog troughs, windmill towers, rigging for hay forks in the barn, and a lot of other uses, that he wants to pick over the pile for if you are weak willed enough to permit him.

No doubt some dealers are deterred from doing this sort of thing for fear of incurring the opposition of the carpenters. I know pretty well what this is, and what it means to a country dealer who thinks he has to do as the carpenters want him. I remember when I felt that way—I would be on the lookout for them when I was at work piling and laying aside the choice pieces, and if one happened along when I was thus engaged would hastily flip over a few boards to cover the evidence of my regrading. I laugh to myself when I think over it now. What many dealers lack is what we call "nerve" to face the opposition of old time customs and ideas concerning the sale of lumber at retail, and for want of the exercise of it a good many bills could be sold for more money than is gotten for them. How many times have you felt like kicking yourself because your nerve failed you in obtaining a price which you discovered afterwards you might just as well have had.

Yes, the dealers need a little more stiffening in many places where the customers run the yards.

C. H. Ketridge, in the Mississippi Valley Lumberman.

Changes in the Character of Retail Stocks

I had occasion to speak once of the tendency toward the elimination of the individual small dealer by reason of the growing disposition of people to go where there is larger and more diversified stocks and the volume of business is depended on to make up for the narrower margin of profits, says a writer in the St. Louis Lumberman. This is creating an adverse condition for the small-town lumberman, but, in the majority of such cases, there is always a corresponding remedy. Not always, however, is there a disposition to adopt the remedy by the party so affected. People don't like to change their old customary way of doing things, but they either have to do it sometimes or get out of the business game.

When we compare the wants of the average individual of to-day with what he got in addition to his satisfaction not more than a quarter of a century ago, we can but notice that there has been none the less rapid, because we have not perceptibly felt the movement. These changes in the wants of the community have been developed in practically all of the principal lines of trade. In fact, many new lines of trade have been created by them. Look at the average grocery or dry goods store, and the stock that are now carried in a hardware store. Go into a good meat market even, and note the variety of eatables in the meat line kept to tempt the eye and the appetite. Even a good peanut stand is also affected by this development in the wants and tastes of the people. A visit to a well-stocked agricultural machinery establishment will disclose before your eyes a multifarious array of vehicles for travel and cultivating the ground and harvesting its crops. And as you view them, let your memory go back to what such places used to contain for sale so late as even twenty years ago. In fact, the evolution in character of all classes of merchandise is scarcely less marked in one than the other.

Has the Lumberman Kept Pace with Changes in Other Lines?

Now, the question arises how the retail lumbermen in general kept pace with these changes in other lines of business? There is no doubt but in many cases they have, although, as a rule, the dealers carry pretty much the same character of stocks as they always have. They are conservative about adding to their stock what they know little about, and are inclined to keep within their own specialty of lumber and the few side lines which have become customary to a lumber yard. Speaking from my own experience and observation, I should say that while the character of lumber stocks has changed materially, yet, on the whole, I believe the retail lumbermen have lost the control of a good many items which once formed a part of their stock, but which now has gone from them and have become merged into other lines of trade. And, what is more, the number of different thinks in lumber he now carries is gradually narrowing down and becoming less and less every year. He may carry four different kinds of lap siding, made of as many different woods, but it is only siding, and it won't be many years before this, too, will be supplanted on the walls of a house by cement plastering.

The item of fencing, as we used to know it, has practically vanished from the average lumber yard, and unless he handles its substitute—barbed wire—this item of trade has passed into other hands. The general use now of drop siding for barns has rendered almost obsolete the O. G. batten for covering the cracks between the stock or barn boards that were commonly used for barns and outbuildings. The changes in the style of building have cut the dealer out of several other articles of good profit. Among them I may mention that of moulding. 'Tis true, however, there is considerable moulding used yet in the building of dwelling houses, but nothing like what there used to be in the earlier days of the trade. The introduction of worked casing and blocks for the interior finish has done away with the more costly and elaborate grouping together of different mouldings. Where once a door or window was trimmed with a combination of from two to five numbers, there are now but two, the casing and the sash stop. The old heavy base mold that was thought necessary for the best finish is now represented by a mold worked on the base itself. Even the quarter round is not used in this connection as much as formerly. It was the prevailing idea once that in order to have a piece of woodwork look nice there must be a molding stuck on it, and the more that was put on the better it looked to the eyes of most people. It is not so long since that Portiere work was common in the better class of houses, but that has largely been termed as "out of style." About the only things that have taken the place of the articles I have mentioned are the two items of plate-rail and the mold to hang pictures from. Nearly everything is much plainer in interior finish. Even the plasterer is cut out of the work

of fashioning the heavy angle mould and the circular ceiling pieces that used to be the pride of our mothers and grandmothers, and the roosting places for flies on a cool morning.

The Old Fashioned House

Now let us look on the outside and we can see even more the absence of many things that at one time were common in the exterior decoration of a house. Like those of the interior, they yielded a large per cent. of profit to the lumber dealer. Let me call your attention, first, to the openings of a medium class dwelling that was built forty or more years ago. There are a few of them left in every town in the older States, and to the modern lumberman they are a curiosity. I have one in mind that I was looking at a year or two ago. The whole outside of the old house formed a striking contrast to those on either side of it, which are of more recent date. The openings are of the circular top style, and heavily molded on the casing. The cornice is square, with a heavy projection supported by clusters of heavy brackets placed at frequent intervals. What we know as the bed mold is formed of dentil blocks with a heavy mold running along at the bottom of them. The frieze is paneled, with a mold running along at the bottom of it, also. The corner boards are wide and paneled, and a heavy molded cap on it where it comes under the frieze. The baseboard is about the only member of this outside finish that has not been changed by the later architects, and this chiefly because water still persists in following the line of the least resistence. This being of the square style of dwelling, there is of course, a roof deck which is inclosed by a sawed balustrade with small square and molded posts at the corners. There is a porch to this house, and it is, of course, of the same general style. The columns were made in the carpenter shop with material gotten, no doubt, from the local lumber yard. The whole porch is built up in that way, and where such buildings were put up in the country towns where there was no planing mill the whole of the "gingerbread" work and material on this porch would have been made and furnished by the home mechanic and lumber yard. When you come to what is known as the Gothic style of houses, there was a good deal more of this class of ornamentation. The verge boards for the gables, the finials and comb finish of the roof and other things that go with this style, were all made by the local carpenter or furnished ready made by the factory, and came through the medium of the lumberman who, of course, made his profit out of it.

Rural Districts an Exception

But all of this is now changed for him. The elimination of those things which I have briefly mentioned in the foregoing has cut deeply into the profits of the lumber business. In the larger towns and cities it has got so now that about all he is called on to furnish is the material for the bare structure. The mills and the factories furnish all the rest, which include the doors, windows, interior finish and hardwood floors and most of the porch work also. If this material is furnished through the yard the dealer gets mighty little for his risk and trouble. Of course, it is not so bad as this in the country neighborhoods. There still lingers in the minds of some of the rural residents a love and a hankering for the showy and ornate in architecture. A farmer's wife will still have her pantry, closets and shelving in her long-planned new house. The cheffonier would be in her way in the rooms; she wants a place where she can tuck away the old truck that is too poor to use and too good to give away or destroy. And in this she is, perhaps, among the best friends of the lumber yard. She likes paint and graining better than the varnish finish. A floor without being carpeted would not be comfortable and homelike to her. Put a hardwood floor in a farm house, and the average farmer would cuss it in less than a week. He wouldn't dare to go on it with his heavy, dirty boots. He would be raked fore and aft by the tongue of his wife and reminded that such a floor was not for common use. Many a man is made miserable by the building of a new house and the consequent change in his old free and easy habits. And so the farm house is still being built with a view to the utility and comfort of its occupants. There is many a city man who is living in his modern palatial residence, with all its luxurious belongings, who at times lies back and thinks of the old roomy farm kitchen of his mother's, and unconsciously longs for the homely comforts and the freedom he once experienced there. Yes, indeed, the country towns are still the place for the retail lumberman, for however much his stock may have changed from what it used to be, there are yet enough items in it to make him realize that he's still a retailer of building material.

I might mention before I close another change that has come in the retail stock of even a country yard. Do you remember the pickets and blinds that we used to handle in the seventies and eighties? Why, a lumber stock then was not considered complete without them. When a bill for a house was figured on it included, as a matter of course, the blinds for the windows. You didn't have to ask the size of them, for it followed that so many windows would require just so many pairs of blinds, and if the party was from one of the New England States you could safely bet on the color it would be painted. A white house with green blinds was as typical of the "Yankee" as was his propensity to "swap" and "dicker." Now, the last lingering vestige of the architectural taste of the Easterner seems to be found only among some old-fashioned Germans who still persist in wanting some kind of a shutter to their windows. The old German is about the only one, too, who has any use for a picket fence. It is curious how quickly the picket fence has vanished from the residence lots in the towns. It doesn't seem but a few years ago that every residence of any pretensions at all was inclosed by a more or less elaborate picket fence; but the lawn mower came, and with it went everything of an enclosure about the average town residence. These two items of pickets and blinds have gone almost entirely from the trade of the lumberman, and if you will observe closely you may note that hardly a year goes by now without here and there something being crowded out of the trade of the dealer. The natural question comes up, "Where is it going to stop?"

The Value of Correct Tallies

That a reputation for shipping good grades of stock is a desirable thing for a mill to have, a valuable asset that is of material assistance to the salesman in getting orders, we all know; and we have a hazy idea that it is a good thing to have a careful tally of the stock so that there may be no back claims on the invoice. But if every mill man realized the full value of correct tallies there would be more attention given to the careful loading of stock, says the St. Louis Lumberman. The small mill operator, and sometimes the big one, too, figures that the man receiving the stock will tally it carefully anyway.

Suppose there is a transfer, or something happens to the lumber in transit? Unless there is a careful and dependable tally, one that one can swear by, it is pretty hard to establish a claim for loss. And there is another thing, the thing in mind that is responsible for this subject: there are times when the yard man buying stock likes to dispense with his own tally, and to feel safe in the tally and invoice from the mill.

During the present season a yard man who handles about 600 cars of lumber a year was showing the writer his books and the system of keeping up with the orders and cars received. Incidentally the question of his own tally and its comparison with the mill tally came up. He smiled at that, and said that he made but little effort to keep a permanent tally of his own; consequently he did not arrange to enter them along with the mill invoice. And finally he admitted that he did but little re-inspecting and tallying. He had men competent to do it, but during the busy season they could not handle all the stock moving in and out, and the men he would pick up to unload cars were often not competent.

When a car of stock is being sent right out on a job he keeps the load tickets and compares them with the invoice tally, but often when a car is going into the stock piles he simply sends men to unload it, without special inspection or tally. One of his men will look into the car a little to see if it seems to be running right, and if it is, that is as far as the examination goes.

This looks like a haphazard way to do business in this day of system and close figures, but he excused it on the plea that it cost extra money to keep close tally on everything, and extra cost eats up the profit of retailing. Also—and here's the point—he tallies up on some mill occasionally to see how the stock is running, and when he finds a mill that is careless in either inspection or tally, he cuts that mill off his buying list and gives his orders to the mills that tally correctly as well as inspect carefully. That is a simple, and may seem like an uncertain system, but he says it works well, and that it is very seldom he finds any **shortage** in his tally.

The Influence of the Forest Ranger

It has happened some times that forest rangers in the employ of the Dominion and various provincial governments, have not seen eye to eye with missionaries whose work takes them into the backwoods of Canada. At times one has heard criticism of the missionaries' methods and at other times missionaries have felt obliged to criticise the methods of the fire rangers most severely. It is therefore a matter of considerable satisfaction to note that the Anglican Missionary at Split Lake on the Nelson River, recently considered it his duty to report to the Superintendent of Forestry at Ottawa upon the excellent work and the high character of the government's representative in that district. Writing under date of April 28th, the missionary in question expresses his views as follows: "It gives me very great pleasure to bear witness to the moral conduct of Mr. H. Branigan, your representative at this post, because it is too often the case that those who come in to enforce laws, deprave natives and then throw mud at missionary effort. The protection of our forests is a national question, but the protection of morals is also an issue of which the Judge takes notice in the Grand Assize."

News of the Trade from Eastern Canada

Messrs. Clarke & Company, lumber dealers, have been registered at Burry, Que.

The stave mill of Joseph N. Bullivant, Mosherville, Hants County, N.S., which was destroyed by fire on May 21st, has been rebuilt and work has been resumed.

During the very dry spell which occurred in July, a fire started in the limits of the S. P. Benjamin Company, Hants, N.S., burning over a large tract of land and destroying a quantity of young timber.

The St. Croix Lumber Company, of Hartville, N.S., have sold their mill on the St. Croix River and their limits on the Panuke lakes to Messrs. Davison and Hill, of Onslow, and R. M. McGregor, of New Glasgow, N.S.

The Knott-Sampson Lumber Company, of Boston, Mass., who are represented in Nova Scotia by Mr. John G. Grey, will ship from Windsor, N.S., to the United States markets this year four million feet of spruce, pine, and hemlock lumber. Most of this will go to Boston and a small quantity to New York and Sound ports.

The South Shore Power and Paper Company, recently organized, with a capital of two million dollars, propose to build a large paper and pulp mill at Drummondville, P. Q. The company have acquired several water power rights on the St. Francis River, within a radius of ten miles of Drummondville, and have under consideration the question of developing 10,000 horse-power.

An excellent demand is general throughout the Annapolis Valley, N.S., for apple barrel staves and headings. All the stave and heading mills are being worked to capacity in order to keep up with business and it is expected that this condition of affairs will continue throughout the balance of the season, as the prospects for a good apple crop are most encouraging.

Business Booming at Fassett, Que.

The Fassett Lumber Co., Limited, of Fassett, Quebec, are experiencing one of the best years in the history of the company. Mr. Collins informed a representative of the Canada Lumberman that up to August 1st they were six and a half million feet ahead of that time last year and that they were getting higher prices this season than ever before. They have recently placed a representative in the Toronto field to look after their growing business here. Three additional miles of track are being built in connection with their railroad which runs direct from mill to limits, making eighteen miles in all. The mill runs all year round, summer and winter, to meet the growing demand for their stock.

Quebec Timber Cullers Report for July

The Supervisor of Cullers for the Province of Quebec has issued the following comparative statement for the month of July, 1910, 1911 and 1912:—

	1910 Cubic Ft.	1911 Cubic Ft.	1912 Cubic Ft.
Waney White Pine	236,240	440,720	227,280
White Pine	9,640	.....	80
Red Pine	4,760	6,240	1,320
Oak	67,040	14,120	10,000
Elm	224,680	158,960	200,520
Ash	720	80	120
Birch and Maple	40,680	58,800	38,640

A Valuable Book for Hardwood Lumbermen

The National Hardwood Lumber Association of Chicago, Ill., have favored the Canada Lumberman with a copy of the report of their last annual convention. The report contains also the rules for inspection of quartered gum, white maple, bridge plank, and other woods, not covered in the regular book of inspection rules. The report will therefore be of much interest to all engaged in the hardwood lumber business. In anticipation of a heavy demand, the Association have ordered a generous supply, and state that they will be pleased to send a copy to anyone, upon request.

The natural disposition of a saw is to run right; when it runs wrong there is usually something unnatural about it or its arrangements.

A good way to repair an emery wheel that is out of balance is to box it up and ship it back where it came from. You will find this less troublesome than any other method.

Get the safeguard habit. It may seem a bit awkward at first, but you will get used to it in time. There is no getting around the call for more safeguards on our wood-working machines.

Mr. Gifford Pinchot, president of the National Conservation Association, and who for several years was chief of the United States Department of Forestry, has been on a visit to Victoria, B.C., where he fulfilled a promise made earlier in the season to give Mr. Overton Price, the new head of the Forestry Department, the benefit of his experience in preparing the plan for the organization of the forest branch for the province. Speaking of the organization of a department for the work of forestry conservation, Mr. Pinchot, in an interview at Victoria, said; "This work is to be organized just as you would organize any other large business. After ascertaining what duties are to be discharged and how the responsibility should be distributed, the next thing is to begin building up your personnel. This is perhaps the most important part of it all. The service in the United States, which began with eleven persons, now has over thirty-five hundred, and spends over five million dollars per year. That means an expenditure of two cents per acre per annum, which, I understand, is the same rate as has been provided for by legislation in this province.

National Hardwood Inspector for Canada

Mr. John J. Miller, formerly deputy inspector for the National Hardwood Lumber Association, stationed at Buffalo, N.Y., has been appointed chief of the inspection department of the association for Canada. This is a new departure for the National Hardwood Association and will be endorsed by the large number of members whom they have in Canada at the present time. Mr. Miller's duties will

be to call on the Canadian members of the Association to inspect and measure lumber purchased or sold by them. He will issue a guaranteed bonded certificate of the Association exactly as the present inspection force is doing in the United States. At present there are eight hundred members who endorse the plans of the Association and the results which are being secured, and who believe that the same methods applied to the requirements of Canadian hardwood interests will bring satisfactory results.

The advent of this well-known and powerful association into the Canadian field will be welcomed by Canadian hardwood lumbermen. The Association stands for fair dealings and a proper grading of lumber, which is something that the Canadian trade requires urgently at the present time. The Canada Lumberman wishes Mr. Miller every success in his new position and earnestly hopes that the Canadian hardwood trade will do all in their power to assist him in his duties.

Wood Pulleys

You have probably noticed that wood is very conspicuous in pulleys these days; that it is used in many places where it was not though of before. It was perhaps the split idea that first made the wood pulley popular, and that idea is good yet, so good that it is freely used in metal as well as wood pulleys. But now one finds many wood pulleys where there is but little call for the split. A sample instance is on motors for driving machines. When dynamos and motors were new things wood pulleys were not a part of them. They are now, though, and they are an important part wherever belting is used. There are places where the metal pulley is essential, and it will always be used, but where it is not absolutely necessary to use metal the wood pulley seems to be getting the call right along.

WANTED & FOR SALE DEPARTMENT

PUBLISHERS' NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

WANTED—LUMBER, ETC.

WANTED—A quantity of 4/4-in. Ontario Plain Red Oak, vicinity of Georgian Bay preferred. Apply Box 535, Canada Lumberman, Toronto, Ont. 14-17

Slabs and Cord Wood Wanted

Am open to buy any quantity up to 10,000 cords hard and soft wood slabs and cordwood. Write me. Horace Hartley, 19 Mayor Street, Montreal. 15-19

Square Hemlock Wanted

8 x 8 and up x 10 ft. and up, Merchantable Hemlock. Horace Hartley, 19 Mayor Street, Montreal. 15-16

White and Red Pine Wanted

3 in. x 6-in-7-in. 18 ft. Tank Stock.

Ontario Wind Engine & Pump Co., Ltd.
Toronto, Ont. t.f.

Basswood Lumber

We will purchase Basswood Lumber, 1-in. and 1¼-in. thick, white stock by car or entire stock. Write us what you have and what you want for it.

Box 498, Canada Lumberman, Toronto, Ont. 11-15

Trimmer Ends Wanted

Price and freight rate permitting we will contract to take your White Pine Trimmer Ends, rotten pieces thrown out, fresh stock and not colored. Write price per cord on car and state shipping point.

The Wm. Cane & Sons Company, Ltd.,
11-17 Newmarket, Ont.

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4½ in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

FOR SALE—LUMBER, ETC.

FOR SALE—On an .08c. rate to Toronto, 3 cars 1-in. dry Maple, 1sts and 2nds.

WILSON BROS., LIMITED,
15 Collingwood, Ont.

For Sale

100 M. ft. 2-in. Cull Spruce. 300 M. ft. 1-in. Cull Spruce. 15 M. ft. 1¼-in. M. C. White Pine. 50 M. ft. 2-in. M. C. White Pine. Fred T. Smith, 310 Board of Trade Bldg., Montreal, Que. 1.t.f.

For Sale

500,000 feet Band Sawn Birch 4/4, 5/4 and 8/4 in shipping condition, rail or water shipment The Rathbun Company, Deseronto, Ont. 14-17

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

For Sale

To the manufacturers: Birch, Maple, Basswood and Elm in all thicknesses. Send us your enquiry. The Meaford Lumber Company, Meaford, Ont. 7-20

Lumber For Sale

4 cars 1-in. good cedar for boat building.
100,000 ft. 2 x 6 mill run hemlock.
100,000 ft. 2 x 8 mill run hemlock.
4 cars 2-in. white oak, sound and square edge. Apply to Geo. C. Goodfellow.

Montreal, Que.

Shingles For Sale

for immediate shipment. Standard grades.
7 cars Specials.
5 cars Extra No. 1 with clear whites in.
5 cars Clear Whites.
Which we bought before the raise and can sell under the market, write or wire for prices for immediate shipment. 14-15

KEDDY & KENNY.
Hemmingford, Que.

For Sale

For quick shipment, 800,000 ft. Birch. All grades and thicknesses.
200,000 ft. Soft Elm M. R. All thicknesses.
100,000 ft. Basswood M. R. inch.
100,000 ft. Maple. All grades and thicknesses.

Send us enquiries. The Meaford Lumber Company. 7-20

FOR SALE—MACHINERY, ETC.

For Sale

Two Steam Logging Engines by Alex. Dunbar & Sons. John Breakey Registered, Breakeyville, P.Q. 14-15

Saw Mill For Sale

On Georgian Bay, adjacent to North Shore, good two-storey circular mill in good running condition, double edger, trimmers, capacity about 12,000 feet per day; plenty timber available and ready sale for slabs; splendid opportunity for small millman; will be sold cheap as owners have other interests requiring their attention. Box 444, Canada Lumberman, Toronto, Ont. 5-TF

For Sale

In perfect order a McGregor Gourlay Planer and Matcher. Planes up to 15 inches wide by 16 inches thick. For sale at liberal conditions and terms. Apply to Automatic Wood Box & Turning Co., St. Romuald, Que. 15

Machinery For Sale

A Waterous No. 4 Band Saw Mill, with Carriage Saws, Live Rolls, and complete Filing Room equipment, also several Good Woodworking Machines, in splendid condition.

J. S. FINDLAY,
2-TF Owen Sound, Ont.

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 70 H. P. boiler, 60 H.P. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water.

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

Machinery For Sale

Steam Boiler, 16 ft. x 60 in., 98-3½ in. tubes, 36 x 36 steam dome, pressure carried 100 lbs., 16 ft. x 10 ft. water back, breeching grate bars, front injector, safety valve, water column, mud drum, stack foundation plate. Also one 10 x 7 Single Dean Pump. Boiler in first-class condition; has been used very little; will sell cheap. The Cleveland-Sarnia Saw Mills Company, Sarnia, Ont. 15

Cowan double surfacer, pipe bender, rope drive, ribsaw, one fifteen horse motor D.C. one twenty-five horse generator D.C. Apply Gold Medal Furniture Manufacturing Company, Toronto. 15-17

Logging Equipment For Sale

100 Russell logging cars, complete with all chains, brakes, etc., in strictly first class condition at exceptionally low price. Full outfit of logging equipment, horses, harness, sleighs, chains, tools, blankets and camp outfit, all at a small fraction of its value. Write for prices and full description to Yawkey-Bissell Lumber Co., Arbor Vitae, Wis. 14-17

Machinery For Sale

One 10-in. moulder on base Hespeler Machinery Co.; one 26-in. divided roll Ballantine Planer; one power feed rip saw Ballantine; one 16-in. buzz planer with Jones guard; one 30-in. bracket band saw; one shaper; one roll top cut-off saw; one wood frame cut-off saw and groover with two patented grooved heads; one wood frame rip saw with boring attachment; one mortiser; one tennoner; one sash and door sticker with five heads; one door clamp; one 16-in. swing lathe; one sand drum; one 30-in. x 30-in. x 36-in. safe; one 35 h.p. engine and boiler; one emery with three wheels; one swing saw; a large quantity of sprocket wheels and chains; one automatic saw gummer; twelve roller bearing factory trucks; one rope feed saw mill; large number of wood split pulleys; quantity of used belting; quantity of shafting hangers, boxings, etc. Will sell any of the above cheap for quick sale.

Write to Box 576, Canada Lumberman, Toronto, Ont. 12-tf

Machinery For Sale

Carver, 4 spindle Rohlman.
Cut-off saw, railway.
Dovetailer, Boults
Engines and Boilers
Jointer, chair seat, Jenkins.
Jointer, 16-in., Clement.
Moulder, 2 side, 6". Smith.
Moulder, 3 side, 6". Smith.
Moulder, 4 side, 9". Fay.
Moulder, 4 side, 12-in., Woods, inside.
Mortiser, Smith.
Mortiser, Bit.
Planer, 20-in. Gem.
Planer, 24-in. Cincinnati.
Planer and matcher, 9-in. by 6-in. Berlin.
Resaw, band, American, 48-in. wheel.
Resaw, 42-in. corcular.
Rip saw, circular, self feed, Williamsport.
Sander, 24-in. Perry, power, two drum.
Saw Gummer,—Rogers.
Saw-mill, band, 63-in. wheel, carriage 18 ft.
Shaper, home made, wood frame, 2 spindle.
Shaper, iron frame, wood table, 2 spindle, light.
Shaper, iron frame, wood table, 2 spindle, heavy.
Swing saws, 6 ft.

O. L. Packard Machinery Company,
c Milwaukee, Wis.

WANTED—EMPLOYMENT

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

WANTED—Position as Bookkeeper and office manager with wholesale lumber firm. Ten years' experience; competent to handle all of a lumber office work. Best of references furnished. Apply Box 521, Canada Lumberman and Woodworker, Toronto, Ont. 13-16

WANTED—Position as Manager of lumber operations—stump to market—experience in White Mountains (New Hampshire), spruce, hemlock, hardwoods. Logging, railroading, manufacturing lumber, box shooks, and spools. Reply Box 539, Canada Lumberman, Toronto, Ont. 15-t.f.

WANTED—EMPLOYEES

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—Saw Mill Employees; 2 Edgermen, 2 Setters, 2 Carriage Riders, 1 Log Scaler, 1 Spare man, 1 Lumber Grader, 1 Lumber Scaler, 2 Foremen for Lath Mills. Only thoroughly competent men who understand their business need apply. Good wages and long season. The Cleveland-Sarnia Saw Mills Company, Sarnia, Ont. 15

WANTED immediately first class band sawyer, double cut "R. H. Mill." Apply Mickle, Dyment & Son, Gravenhurst, Ont. 15

Reporter

We want an energetic representative in each town in Canada to report on building and engineering work—to tell us where machinery, equipment, supplies or materials may be sold. Reports are paid for on the per item basis. It depends upon your own efforts how much you make. This is a profitable side line and there is good money in it for a hustler. Write to MacLean Daily Reports Limited, 220 King Street West, Toronto.

BUSINESS OPPORTUNITIES

Panel and Veneer Plants for sale at public auction on August 15th, 1912. Fully equipped, excellent condition, accessable to timber and good local market. Ernest Cawcroft, Trustee, Jamestown, New York. 15

For Sale

Planing mill, well equipped with modern machinery, doing good business. Ill health only reason for selling. Reply J. S. Richardson, Tillbury, Ont. 12-15

Timber Limit For Sale

1,200 acres Hardwood, Hemlock and Cedar. Some Pine; 9 million feet for $5,000 cash. Five miles from railroad; two from river. Box 431, Canada Lumberman, Toronto, Ont. 6-t.f.

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest, if your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf.

For Sale — Sawmill with Capacity

Of one hundred thousand feet per day. Located in Everett, Wash. Good rail and water shipping facilities. Ten and one-half acres of land with excellent mill pond. Price less than one-third of appraised valuation. 15-18

Address, P. GARDINER, Everett, Wash.

Tenders for Pulpwood Limit

Tenders will be received by the undersigned up to and including the 15th day of August next, for the right to cut pulpwood on a certain area, situated on the Abitibi Lakes and River, tributary to the Grand Trunk Pacific Railway, and the Temiskaming and Northern Ontario Railway, in the District of Temiskaming.

Tenderers shall state the amount they are prepared to pay as a bonus in addition to dues of 40 cents per cord for spruce, and 20 cents per cord for other pulpwoods, or such other rates as may be from time to time be fixed by the Lieutenant-Governor in Council, for the right to operate a pulp mill and a paper mill on or near the area referred to.

Such tenderers shall be required to erect a mill or mills on or near the territory and to manufacture the wood into pulp and paper in the Province of Ontario—the paper mill to be erected when directed by the Minister of Lands, Forests and Mines.

Parties making tender will be required to deposit with their tender a marked cheque payable to the Honorable the Treasurer of the Province of Ontario for ten per cent. of the amount of their tender, to be forfeited in the event of their not entering into agreement to carry out conditions, etc.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

W. H. HEARST,
Minister of Lands, Forests and Mines.
Toronto, Ont., May 15th, 1912. 11-15

For Sale

The best equipped planing mill in Northern Ontario in fast growing town. Also lumber yard in connection. Splendid opportunity for live man with some capital. Owner retiring from business. Apply Box 522, Canada Lumberman, Toronto, Ont.

For Sale

Established Lumber Business, with first class mill, now running full time. Timber limits with 20 to 30 million feet of standing pine timber conveniently located, and all merchandise, etc. Price $55,000. This is worthy of investigation. Address Box 332, Canada Lumberman, Toronto, Ont. 19-22-t.f

Hamilton Lumber Yard For Sale

Established lumber business with more orders than can be attended to with present equipment, in rapidly growing East Hamilton. Owner will sell controlling interest or entire business and can show good reasons for selling. A grand opportunity for right man. Five to Eight Thousand Dollars required. Apply Box 543, Canada Lumberman, Toronto, Ont. 15

Timber For Sale

Tenders will be received up to and including the first day of October, 1912, for the right to cut white and red pine and spruce, on two timber berths on the upper waters of the Jocko River east of the townships of Garrow and Lockhart, in the District of Nipissing, Province of Ontario, the berths being designated "Jocko No. 1" and "Jocko No. 2," each containing twenty-five square miles more or less.

For maps and conditions of sale apply to the undersigned.

W. H. HEARST,
Minister of Lands, Forests and Mines.
Toronto, July 17th, 1912. 15-18

Alberta's New Forest Fire Laws

Railway companies operating in the province of Alberta are liable for fires in forests and elsewhere starting within 300 yards of their rights-of-way, both sides, according to a new act which became effective on the Canadian Pacific railroad, July 5, and on the Canadian Northern and Grand Trunk Pacific lines, July 15. It is provided under the regulations, given out at Edmonton on July 3, that in the event a fire gains control the carrier company must fight it to the extent of ten miles, being responsible for the cost and the damage.

The railroad companies must patrol the first districts, regularly, going over the road from two to four times a day. The patrolmen must be employed and paid by the roads, instead of by the Department of the Interior, and the latter will appoint an inspector to see that the work is carried on properly. If a road is lax in appointing patrolmen, or if patrolmen fail in their duty the matter will be reported to the superintendent. If he fails to act, the department will go to the board of commissioners and lodge a formal complaint.

In a letter sent to the head if each railway by Clyde Leavitt, chief fire inspector for the board of railway commissioners, the principal means of fire prevention and control are classified under six general heads, as follows:

The adoption and use of fire protective appliances on locomotives burning coal.

The extinguishing of fire, live coals, and ashes deposited upon tracks or rights of way outside of yard limits.

Non-use of lignite coal.

The establishment and maintenance of fire guards.

The organization of a special force of railway employees for fire prevention, with particular reference to patrol.

Regulation of burning of inflammable material along rights of way.

The details of the patrols required in districts in British Columbia and northern Alberta along the Grand Trunk and Canadian Northern roads are extensive. Velocipedes will be largely used, and fire rangers will go over their districts thirty minutes after the passing of every train. They will travel by foot or on horseback where it is inconvenient to use velocipedes. It is expected that 100 men will be required for the work.

So far as is practicable, the work of patrol has been combined with the other regular duties of patrolmen, but where this is impossible, or where it is not so stated in the letter, the patrol force is to be a specially organized and specially supervised body of men, who shall perform, to the exclusion of other duties, the patrol and other fire protective work, indicated in the regulations of the board.

The hours of the patrols required in the mountain districts shall be continuous between 7 o'clock in the morning and 6 o'clock in the evening of each day, including Sunday, with a minimum patrol of two round trips each day, one in the forenoon and one in the afternoon.

Where velocipedes are used, all patrolmen passing through telegraph stations will be reported the same as passing trains, and such records will be accessible to the inspectors in the employ of the forestry branch.

D. Roy Cameron, of Kamloops, B.C., district inspector of the Dominion forest reserves, has been appointed chief fire inspector on the Canadian Pacific mountain division on the main line, and three other employees of the Dominion forestry branch are to be appointed divisional fire inspectors, with headquarters at convenient points, each to act as inspector under the direction of the chief inspector. W. N. Miller, stationed at Calgary, district inspector of forest reserves, is appointed chief inspector of district No. 3 of the Alberta division.

That the department is using every endeavor to minimize forest fires is evidenced by an extract from the letter, which is as follows:

"In order to minimize the danger of fires from smokers on railway trains, notices should be posted in all passenger cars, and on the rear platforms of observation cars during the period from April 1 to November 1 of each year, requesting passengers not to throw lighted cigars or cigarettes from the train. Porters and other employees on passenger trains should be instructed to request the observance of this precaution by passengers as far as possible. Suitable receptacles for cigar and cigarette stubs should be kept on the rear platform of all observation cars, while such cars are in use."

The work of removing all inflammable material from the right-of-way is to be taken up vigorously as required by the railway act. The letter compliments the roads upon having given assistance in this work in forest fire prevention, but reminds them of the fact that there is still much to be done.

Lumber Statistics of Two States

A census report on New York manufactures says of the manufacture in that State of lumber and timber products:

This industry in the State in 1909 was represented by 674 independent planing mills, 1,389 sawmills and loging plants, and 200 packing-box factories, which reported 65.9 per cent., 20.7 per cent. and 13.4 per cent., respectively, of the total value of products for the industry. The corresponding percentages for 1899 were 56.4, 28.7 and 14.9, respectively. The value of the output of the sawmills and logging plants of the state was $15,131,000 in 1899, $13,310,000 in 1904, and $15,036,000 in 1909. The industry as a whole shows an increase in value of products from $52,738,000 in 1899 to $61,677,000 in 1904 and to $72,530,000 in 1909, an increase for the decade of $19,972,000, or 37.5 per cent, and for the more recent five-year period of $10,853,000, or 17.6 per cent. It is apparent, therefore, that the growth of the entire industry was due very largely to the increase in the production of the planing mills. Measured by value of products, New York ranked second in 1909 among the states of the Union in the lumber industry.

The number of establishments in New York was 2,263; persons employed, 32,458; horsepower used, 131,462; capital invested, $64,490,672; expenses, $65,012,000, value added to products by manufacture, $30,824,000.

In Massachusetts in 1909 708 establishments were engaged in making lumber and timber products valued at $23,025,000, of which $10,541,000 represented the value added by manufacture. The industry engaged 10,500 people and used 44,784 primary horsepower, had $17,551,000 capital invested and paid expenses of $20,208,000 annually.

Ravages of Spruce Bud Moth

Alarming reports of the ravages by the spruce bud moth in the north woods of Somerset County, Maine, have been received recently. The older of Somerset County lumbermen recall plagues of the bud moth by tradition about a century ago, and again in the late seventies. In the second instance, the pest practically ran out in five or six years. The present outbreak was first noticed about three years ago.

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Review of Current Trade Conditions

Ontario

A scarcity of dry stocks, and in fact stocks of any kind, coupled with a shortage of freight cars, are the principal drawbacks that the lumber companies in the Ontario trade have been facing for the past two weeks. The labor market is also a factor. Mill men, wholesalers and others throughout the province state that they cannot get men to load stock or cars to ship. Although the immigration this year has been greater than ever before, it does not seem to have affected the lumber mills to any considerable extent. Men are in demand for all classes of work, principally for railroad construction and lumbering operations. A great many men will be needed at the camps this winter, and it is expected that the labor shortage will then be felt more than ever.

Trade conditions throughout the province are on a firm footing, prices on the whole are good and the demand is abnormal for this time of the year. Dry stocks are scarce, in fact they cannot be had at any price. Hemlock prices are stiff with little stock on the market. Pine on the whole is a little easier with a good demand, owing to the large amount of building operations in progress. The car shortage is said to be responsible to a large extent for the delay in shipment from several mills. The railroad companies claim that they are doing all in their power to move freight, but the mill men and wholesalers state that they cannot get cars under any consideration, and several of them are of the opinion that this fall will see a further shortage, on account of the immense grain crop that has to be moved in the West. The railroad companies, however, state that they have plenty of cars on hand to move the grain crop and to take care of the lumber trade, which is expected to be heavy this fall.

The hardwood trade is in good shape with a scarcity in some lines. Birch and maple, particularly dry stocks, cannot be had and furniture manufacturers are doubtful whether they will be able to get a supply of seasoned stock for winter use.

American manufacturers are buying up this wood to a considerable extent, chiefly the better grades, and in consequence a large amount of inferior stock is left on the Canadian market and cannot be used by the manufacturers. The hardwood dealers expect, however, to take care of all orders within the next couple of months. Prices are stiff, but it is said that no further advance is anticipated for the present year.

Lath and shingles are in good demand and prices remain steady. The arrivals from the coast have not been numerous, but this has had no effect on the prices. Lath, owing to the large number of building operations, is in good demand with no shortage reported.

Eastern Canada

Trade conditions throughout Eastern Canada and the Eastern States are excellent. Lumber of all kinds is in demand and prices are very firm. There is a large amount of building going on and in consequence hemlock and pine are in considerable demand for immediate use. Dealers are buying stock in limited quantities only, but it is expected that they will make a heavy demand on the market after the harvesting season. Dry stocks are scarce and prices are, if anything, on the increase. Builders as a rule are taking inferior stock for their buildings, owing to the scarcity of No. 1. The car shortage has also been felt to a considerable extent throughout this territory. The railroad companies are preparing to move the western grain crop and are rushing all the available cars to the West and lumber manufacturers in the East feel that they are going to be hampered with the car shortage this fall. Spruce, on the whole, is not as active as it has been, but as the export trade promises to increase in the near future a better demand is looked for. The effect of the strike of the dock workers in England has not been felt to any extent in eastern ports.

The chief reason given for the small export trade is the abnormal freight rates. Hardwood is in demand, but it is none too plentiful, birch being very scarce. This wood is in constant demand among furniture dealers and implement manufacturers, and dry stocks cannot be had at any price. Mill men state that they cannot cut birch fast enough and that it will be utterly impossible to get dry stocks this year. The lath and shingle market throughout the East is in good shape with a good demand, and fair prices. The Boston trade shows a falling off to some extent, although conditions are expected to become normal in a short time.

The high freight rates from ocean ports at the present time are causing anxiety for several eastern dealers. The dealers claim that they cannot see why the rates are so high, as there are a large number of vessels in Atlantic coast ports lying idle. They feel that the rates are being boosted by the steamship mergers and many of them are of the opinion that lumber shippers of the East should get together and purchase a line of steamers to carry their own stocks to the old country.

Great Britain

The English lumber trade conditions have been affected a good deal of late by the dock strike in London and also by the ever-increasing freight rates. The unloading of vessels has been greatly hampered in the port of London by the strike, and stocks when they are unloaded are simply piled on the wharf and cannot be moved. English shippers, on the whole, cannot explain the rise in freight rates. The market as a rule is good throughout the United Kingdom, but dealers are, if anything rather wary about importing, owing to the prohibitive rates. Ocean freight rates at the present time are about $4.00 more per standard than they were a year ago and it is expected that a further increase will be made in a short time. Stocks at large centres in the United Kingdom are about 4,00 standards less at the present time than they were during the same season last year. Pine is in good demand and stocks are getting low. Dealers have large blocks of stock on order, but state that the shipping facilities from St. John, Miramichi, Halifax and other parts are entirely inadequate and that they cannot get their orders in time. Prices are firm with, if anything, a tendency to advance.

In Manchester, the trade continues brisk with good prices. Dealers in this city claim that they are making little or no profit on lumber as it is all eaten up by the high freight rates. There are a number of good inquiries for pitch pine, of which there is a scarcity in the English market. Dealers as a rule are not holding large stocks to any extent. The imports as fast as they come in are being used, which is giving the dealers no opportunity to stock. An interesting table which was published recently shows that pitch pine logs have advanced in price almost fifty per cent. in the past ten years and pitch pine planks almost thirty per cent. Dealers state that this advance has been entirely due to the increase in ocean freight rates. Hardwoods are as a rule in good demand and prices are firm. The cabinet-makers' strike affected the market to a considerable extent, but as the strike has been settled it is expected that the market will show increased activity in the near future. At Glasgow, conditions are good, and there is a healthy demand at the present time. Stocks are restricted as a rule to certain lines and shippers are as a whole advancing prices. Spruce is very firm with good prices and a fair demand. The increase in freight rates is also bothering dealers at this port, and they state that if the increase continues, lumber prices will be entirely out of proportion to the trade.

United States

Taken as a whole, the lumber trade throughout the United States seems to be in fairly good shape, the mills are fairly well caught up with their orders, and are now cutting yard stock. A steady demand is looked forward to for the rest of the summer, owing to the activity in the building line in all of the large cities. Stocks as a rule are none too plentiful in any line, and dry stuff is in considerable demand. The railroads are doing fairly well in moving stocks, although most of them are busy moving cars west to handle what promises to be one of the greatest crops ever harvested. There is very little change in the yellow pine market, the demand is not good to any great extent, but the movement shows a fair amount of activity. Some of the larger buyers are in the market for fall requirements and the latter half of the month will probably show improvement. Mill stocks as a rule are light and assortments very poor. Cyprus is selling well and manufacturers are booking large orders. Mill stocks are somewhat broken in this grade of lumber, while dry stock cannot be had.

Hemlock is in good demand. Prices are very firm and the volume of business is steady. Dry stocks cannot be had at any price, and, as a rule the consumers are quite willing to accept shipment no matter how wet the stocks may be or how unseasoned. The advance of 50 cents per M. which went into effect at Buffalo on the first day of July does not seem to have had any effect upon the volume of business done. Building is active and contractors are using hemlock freely in preference to other wood. Eastern boards at Boston are firm, although some of the manufacturers are holding stock at prices a little above the market and feel that they will get their price. Clipped boards as a rule command $22, although it is said that some sales have been made at $22.50.

In Northern pine, business is fairly active, the lower grades being in demand. Box lumber is higher than it has been for some time and apparently stock cannot be had. In hardwood, conditions are about the same as they were during the same period last year. Crop developments are awaited with interest and most dealers are still holding small stocks, although it is expected that they will

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order extensively in the fall. Shippers are busy getting out stock that has been on order for some time, and the mills are anxious to get their orders off so that they may cut stock for fall and winter. It is generally assumed that stocks will be found exceedingly light this fall and buyers may experience some difficulty in securing hardwood lumber. Birch particularly is scarce. This wood is used to a large extent by a great number of manufacturers and they are feeling the scarcity keenly. Prices have advanced considerably, but stock cannot be had.

The spruce market in Boston is dull, although the retail trade is fairly active. Frames are being sold at $24.50, although some dealers are asking $25. Random prices are steady with a number of good offers, 2 x 4 prices range from $22 to $22.50, with but very few sales. Lath and shingles are fairly plentiful, with a good demand and prices are normal. Cedar extras are commanding $4 in Boston, but a large number of sales are made at $3.90. Lath 1⅝-in. is selling at from $4 to $4.10, 1½-in. from $3.65 to $3.75. Red cedar shingles in Chicago are bringing $3.20 with stars at $2.70, and plenty of stock in sight.

Market Correspondence

New Brunswick News—Spruce in Good Demand

St. John, July 20th. (Special correspondence of the Canada Lumberman):—Spruce holds practically all the ground reported in the last letter. All mills are running full time, and if it were not that freights to U. S. points were almost impossible to get a great deal of lumber would be moving out of St. John to United States ports, but it looks at the present moment as if this state of affairs would continue for some time to come. Freight rates to New York are being quickly picked up at $4.00 on long lumber, and 80 to 85c. per M. on laths. Spruce random is selling in New York at $25 per M. base, for frames 8 in. and under, 20 ft. and under in length, with a corresponding raise in extra lengths or widths. Of course there must be a fair assortment of widths and lengths. Many inquiries are coming in and American buyers seem to be covering this territory pretty freely, and they seem to think that after first of September the price of spruce will be still higher, as many of the mills which have been sawing since winter will shut down; in fact, it is said that ten or twelve mills in New England have finished their cuts this week. Pine boards are in fair demand, in fact anything in box board, dry, would bring from $23 to $24 per M. delivered New England points in comparison with $18 per M. for the same stock a year ago. Hemlock is very scarce on this market, very few boards being offered, as nearly all hemlock produced in this section this year has and will be sawn into timber for the Canadian Pacific Railway wharves on West St. John.

Laths are being held very firm, at $2.70 on wharves; stocks are light as nearly everything has been shipped from this port and only what mills have produced for the last two weeks are on hand. This, we believe, will have a tendency to further stiffen prices. Eastern cedar shingles are being inquired for very freely, in fact the demand is away beyond the supply, and no chance of a fall in prices, as only a limited supply of cedar logs was cut in the woods last winter. The low grades are almost impossible to get, extras are bringing $3.90 to $4.00 per M. delivered New York or New England, with clears and 2nd clears at $3.60 and $2.75 per M.

A Slight Improvement in English Market

The English deal market continues in about the same state as before reported, although if anything it is in slightly better shape, as far as selling in St. John is concerned. One manufacturer has sold two million deals, fifty per cent. 7 and 8 x 3, balance 9 and up at fifty cents per M. over a previous sale made earlier in the season. We know of some small parcels of deals fifty per cent. 7 and 8 x 3, balance 9 and up, being sold to net $15.00 St. John. Further inquiries are being made by the English buyers for city cut stock but all manufacturers are holding for last season's prices and it is felt by winter that it will be obtained. The St. John River Log Driving Company are about half through rafting at their booms at Fredericton, practically all logs have arrived at booms at this date.

Personal and Trade News

Martin L. Brown, of the Woodstock Lumber Company, Boston, Mass., heavy buyers of eastern spruce, passed through St. John recently on his way to Northern New Brunswick. He reports the outlook for spruce to be good, and says that it will improve in early fall.

George McKean has opened an office in New York recently to take care of their fast-growing New Brunswick business for United States. It is to be hoped that they will be as successful in the American market as they have been on the English. It is said that J. E. Moore has let to the Aberthaw Construction Company of Boston, Mass., a contract to build for him at South Bay a concrete saw mill building 180 feet long by 50 feet wide, situated on the property Mr. Moore purchased from the Canada Woodenware Company.

Ottawa Trade Brisk—Prices Strong

(Special to the Canada Lumberman)

Ottawa, July 22.—With a steadily increasing demand since the opening of the summer season, the lumber trade in Ottawa and the Ottawa Valley is now very brisk with prices showing a marked advance over last year. Retail trade is exceptionally good, all the mills running at their full capacity and a good many of them overtime. Building is brisk and retail prices have taken a considerable advance in the last two weeks. American boat shipments are quite heavy, taking large quantities of lumber from the mills.

Spruce has advanced. Prices are very firm at from $1.50 to $2.00 over last year with every indication of their going still higher before the close of the present season. Hemlock is very strong, selling in lots of 100,000 or more. Present quotations are: 2 in. x 6 in. x 8 in. —10/16 ft. at $15.50; 2 x 10 in.—10/16 ft. at $16.50, which prices have increased considerably over last year. Lath, although plentiful, are holding their prices well, 1¼ No. 2 selling freely at $3.25, Ottawa.

The white pine market, although steady, has not shown any great advance, except perhaps in the finer grades, which have gone up from $1 to $1.50 over last year. Hardwood is selling freely at prices ranging from five to ten per cent. over a year ago. Indications point to a scarcity of basswood, on which prices will no doubt advance before the close of the season.

Shingles are also well in demand, all grades having advanced 25 per cent. per thousand.

The building trade is very active in the capital, but perhaps one reason for the increased demand for building material is the large number of summer cottages being built in the numerous resorts along the Ottawa river within a short radius of the city. These are almost invariably frame structures.

The J. R. Booth mills were shut down for a few days last week owing to a break in one of the giant flumes, shutting off the water supply. Mr. Booth himself, although 86 years old, worked night and day alongside his employees repairing the break.

Montreal Trade Continues Strong

Montreal, July 26—(Special Correspondence of the Canada Lumberman)—The market continues to be in a satisfactory condition and inquiries among lumbermen show that the volume of business is excellent. Certain lines it is practically impossible to obtain, and with prices stiffening buyers are being forced to purchase lumber of different quality and at lower values, although it is not so well suited for the required purposes. Thus, hemlock has come to the front, and is being substituted for spruce and pine wherever possible. One wholesaler expressed the opinion that the manufacturers, under stress of the big demand for lumber, are inclined to advance prices at too fast a rate, with the inevitable result that there will be a bigger rush than ever to find substitutes. Lath is keeping very firm, and with the immense amount of building that is going on throughout the Dominion, the chances are that prices will go higher.

Local business is very brisk, and as far as can be seen, there is likely to be a continued big demand.

Trade with the United States is a little slower than it was, due to the usual mid-summer dullness, but there is every reason to believe that it will again pick up. Stocks in New York are reported to be rather low. There has been an advance in freights, of from 25c. to 50c. per 1,000 feet, by canal boats from Montreal, Quebec, and Ottawa, due to the large amount of freight being offered.

Export business to the United Kingdom is fairly active, although more timber would have been shipped had not the cars been so slow in coming forward.

With regard to ground pulpwood, water powers in the United States are now reduced by one-third, and it is expected that the needs of the mills there will put them in the market for large quantities during August, September and the fall months. Shipments until now have been confined to contracts, but many fear a severe shortage in supply before fall rains come.

Sulphite pulp is scarce, and an advance of another dollar per ton in price is reported. Some increases in production have been caused by the additions to two of the Canadian mills, which will, with present output, take good care of the market.

News print is strongly held. Considerable enquiry from the United States has developed, but there is very little news to be had as contracts are taking the output of the mills. The Spanish River mill is now making ninety tons daily, and the Soo mill is about starting with 100 tons, while Price Bros.' new 150 ton mill will not be ready till October.

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EDGINGS

Ontario

Mr. G. S. Richardson will add an $8,000 extension to his hotel at Mattawa, Ont.

John J. Haine's lumber mill and cooperage factory were burnt at Brigden, Ont., recently.

The Naylor-Osborne Co., Ltd., Essex, Ont., have absorbed the business of the Naylor Lumber Co.

The planing mill of H. Hope, 494 Concord avenue, Toronto, was burnt a short time ago. The total loss will be $5,500.

The Canada Lumber Company have purchased a large tract of land in Weston, Ont., and it is said that they contemplate erecting a large planing mill in that town.

Batts planing mills, Pacific avenue, West Toronto, was the scene of a small fire a few days ago. It was quickly extinguished, however, before much damage was done.

The Elliot Woodworker Limited has been incorporated with a capital of $40,000 to manufacture and deal in woodworking and other machinery, with head office at Toronto.

The biggest tow of logs that ever came into Penetanguishene Bay was brought in by the Firstbrook Box Company recently. The tow contained over 80,000 pieces of timber.

The Booth Lumber Company has just purchased 25 acres of land on the C.P.R. cut-off, south of Islington, Ont. A planing mill and lumber yard will be established on this property.

The plant and buildings of the Mann Lumber Co., Peterboro, Ont., have been purchased by Mr. A. H. Stratton. The plant is an up-to-date one, and is being put in first class condition for operation.

The planing mill of L. E. Hall at Port Hope was visited by a fire a few weeks ago. The loss will be about $1,500,000, fully covered by insurance. The principal damage was done to the machinery.

A. W. Yager, manufacturer of shoepacks, of Midland, Ont., recently moved into a new and much larger factory to meet the demands of his growing trade. He reports business this season as being better than for years past.

The Spanish River pulp and paper mill's output for the first six months of this year, shows a gain of some 5000 tons of pulp, ahead of the corresponding period last year. As the latter half of the year is the big production period, the increase in the first half would suggest a gain in production for the year of probably 25 per cent. more.

The White Machine Works Limited, manufacturers of saw, swages, shapers, etc., which recently started manufacturing at Windsor, Ontario are now in fine swing and have their travellers on the road covering the entire country. This is a Canadian branch of the well known firm of E. A. White Co., of Eau Claire, Wis. Mr. W. A. White is general manager of the Canadian firm.

The Mann Lumber Company plant recently purchased by the Peterborough Planing Mill Company, is being rapidly put into shape. Additions and alterations are being made, and the building is being converted into a most up-to-date mill. It is expected that the plant will be in operation in a week or so. Mr. A. H. Stratton, who is at the head of the new concern, is pushing the changes rapidly to completion.

A continuous downfall of rain in northern Ontario has probably been the means of averting many forest fires. Reports have been received by the government that fires, which have made small clearings during the past two weeks by their sweep, have been stopped by the rain. Forest fires have started in all parts of the undeveloped territories, but in no case have they been of serious nature, because of the rain.

Albert Hindle, a former employee of W. R. Kearn, who runs a sawmill at Robroy, Osprey Township, Ont., and who was injured in the plant three years ago, has been arrested, charged with arson, in connection with the recent burning of the large saw mill at Robroy. It is said that Hindle had his right arm rendered useless by an accident in the mill about three years ago, and that he has constantly threatened to get even. The saw mill was burned to the ground on July 5th last and Hindle is said to have been seen in the vicinity of the mill shortly before the fire.

A big timber deal was consummated a couple of weeks ago, when the Shevlin Clarke Company purchased the timber limits and holdings of the Seine River Company, known as the Hines Lumber Company. The tract of timber is situated in the vicinity of Steep Rock Lake and Barings, and extends south to Quetico reserve near Fort Frances, Ont. The consideration was said to be $2,000,000. The timber is all tributary to Fort Frances and can be delivered by water to the present mill of the Shevlin Company, who will in all probability increase their capacity by the placing of additional machinery.

The new district of Patricia has been fire-swept so often, according to a report of the Dominion Director of Forestry, that there is little merchantable timber left in that area. Out of 5,400 miles of country tributary to Oxford House, but 1,600 miles is covered with merchantable timber, while the remainder has been burned over. This country was originally richly forested with spruce, tamarac, jack pine, balsam, fir and poplar, but fire has practically swept all of them out of existence. In many cases, the ground has been fire-swept so often that the seed trees have been utterly destroyed. Most of the timber left is on islands scattered throughout the numerous lakes, some of the trees on these islands measuring from two to three feet in diameter.

Prominent business men of Bruce Mines, Thessalon and Blind River, Ont., waited upon the Hon. W. H. Hearst, Minister of Lands, Forests and Mines, recently, and asked that three townships be withdrawn from the Mississauga Forest Reserve and opened for lumbering operations. It was pointed out by the deputation that nearly all the townships upon the north shore of Lake Huron have been cut over and that only one lumbering concern re-

mains in operation, and also that, as over $1,000,000 has been installed in plant by the manufacturers, something should be done to hold them in the north country. It is claimed that, if the three townships in the reserve, one "A," one "B" and one "C," are opened for cutting, it will have the effect of reviving the lumber industry in the district.

Mr. J. R. Booth, although getting on in years, is still as active as ever. When the new floor in the huge flume in the Ottawa mill burst a few weeks ago, Mr. Booth was the first man on the job. He worked until midnight with his men and encouraged them, both by word and deed, to get the flume in proper running order again. "We cannot do anything with him," said his son, Mr. Fred Booth. "He is so interested in the work that we just have to let him stay here. He has ideas of his own as to how these repairs should be made, and is here to see them carried out." The huge timbers that were laid in the flume when it was built have been replaced by ten large steel stringers, and they will act as a base for the immense concrete floor that is now being laid. The new floor is said to be so substantial that it will hold seven times the weight of water that it formerly held. The steel stringers are being set on a rock, so that there will be no danger of the foundation giving way.

Eastern Canada

The Ideal Sash, Door & Lumber Co. have been registered at Montreal, Que.

Messrs. Clark & Co., lumber dealers, have been incorporated at Bury, Que.

The Emile Chouinards sawmill at St. Pamphille, Que., was destroyed by fire recently.

Messrs. Lombard & Marshall, lumber dealers, have been registered at Colebrook, Que.

Messrs. Ouellet & Dionne's sawmill at St. Onessime, Que., was burned out a short time ago.

The E. B. Eddy Manufacturing Co., of Montreal, contemplate extending their warehouses in that city.

The Lotbinier Manufacturing Co., manufacturers of sash, doors, et.c, has been registered at St. Croix, Que.

Canadian Pulp Mill Machinery Company, Limited, has been incorporated with a capital stock of $20,000 to manufacture all kinds of pulp mill and other machinery, with head office at Montreal.

La Campagnie de Progress De La St. Flavien Ltd., has been incorporated. They are capitalized at $50,000, and will acquire mills, and carry on a lumber business, with head office at St. Flavien.

National Steel Car Company Limited has been incorporated with a capital stock of $6,000,000 to carry on business as general merchants, lumbermen, sash and door manufacturers, &c., with head office at Montreal.

The Grier Timber Company Limited has been incorporated with a capital stock of $100,000 to carry on business as merchants and manufacturers or dealers in timber, lumber, and wood products with head office at Montreal, Que.

The Quebec Labrador Pulp and Lumber Co., Ltd., have been incorporated with a capital stock of $300,000. They will secure timber limits, and manufacture and deal in timber and lumber of all kinds, with head offices at Montreal.

The Gagnon Lumber Company Limited has been incorporated with a capital of $49,000 to carry on a general lumber business, to keep lumber yards and carry on business as builders, &c., with head office at Saint Georges de Beauce, Que.

According to a statement issued by the St. John's River Log Driving Co., up to July 1st, there has been 28 million feet of lumber rafted on the St. John river to that date. They further state that 110 million feet of logs have already reached the booms at Fredericton, and the estimate of 120 million feet to be handled during the year, will be exceeded.

At a recent auction sale held at Bathurst, N.B., the shingle mill of the former Nepisiguit Lumber Co. and the right to cut cedar on 495 square miles of crown timber lands was sold for $16,000 to J. Bennet Hachey, M.P.P., Bathurst, N.B. The rights of the Nepisiguit Lumber Co. and the bondholders in the Robertson property, 144 square miles of crown timber lands were sold for $1600, subject to a former agreement to purchase the same by the Nepisiguit Lumber Co. from John Robertson for $48,000, upon which $31,500 is still due and payable in 1914. The total purchase price of this part of the property was therefore $33,100. It was also acquired by J. Bennett Hachey. No decision has yet been reached regarding operating the property.

Western Canada

Messrs. Murrs & Leighton, proprietors of the sawmills at Princeton, B.C., have sold out to Messrs. Knudson.

The Robereson & Lequiene Lumber Co., Ltd., Grand Forks, B.C., are applying to change their name to the Western Pine Co., Ltd.

David Nevin's saw and shingle mills at Rosedale, B.C., are announced for sale. The mill cuts 10,000 feet of lumber per day and 25,000 shingles.

The British Canadian Lumber Co., mills at Queensboro, B.C., are rapidly nearing completion, and are expected to be in operation about the middle of August.

It is stated that R. F. Green, the new member from Kootenay, in the Dominion Parliament, will urge the imposition of a protective duty on rough lumber from United States.

The Franco-Canadian Timber So. has been licensed to carry on a general timber business in the province of British Columbia. The office of this company is situated at 35 New Broad street, London, Eng.

The plant of the Western Canada Sawmills, Saskatoon, was visited by a miniature cyclone a few weeks ago. Many of the lumber piles in the yard were scattered, and a portion of the mill was wrecked.

Commonwealth Lumber Company has been incorporated with a capital of $100,000 to carry on a general lumber and timber buisness and to deal in contractors' supplies of all kinds, with head office at Winnipeg.

Are your horses of use to you?

This seems an absurd question—and the answer is always **"Of course they are"**—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	$4.50 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	15.00 doz.

Johnson's Horse Liniment, No. 2 (an oil liniment)

1 gal. jugs (Imperial)	3.00 gal.
1 lb. bottles	6.00 doz.
2 lb. bottles	11.00 doz.

Johnson's Horse Colic Remedy

A sure and speedy cure for all kinds of Colic

1 gal jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz,

Johnson's Veterinary Healing Ointment (Gall Cure)

2 lb. tins	2.25 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 doz.

Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, **Collingwood, Ont.**

Dry Mill Cull and Box Lumber Becoming Scarce

These grades are being rapidly picked up. We have still a nice stock of last season's cut.

White Pine *for the* **Wholesale Trade**

We advise you to write, wire, or 'phone without delay and get the benefit of our low prices.

Thos. Mackarell & Co.

Ottawa
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Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

The New "Defiance" Knife Balancing Machine

What is said to be the only machine capable of securing an absoluely perfect balance to all classes of knives of every size and shape, revolving cutters, knife-screws, etc., is herewith illustrated and described as the "Defiance" Patent Proportional Knife Balancing Machine. This machine is too well known to the users of machine knives to require a lengthy description.

Knives could be reduced to the same specific weight by the aid of a common grocers' scales, but that would not attain the object; by the use of the Proportional Balancing Machine the position, as well as the amount of excess of weight, can be ascertained, so that in reducing the knives to the same specific weight they may be made to agree in their corresponding parts. The method hitherto used is by reducing pairs or sets of knives to the same dimensions, and by the aid of common scales to the same specific weight; but so great are the differences in the density of the parts of even the same knife, that a still running set of knives is but an accidental result.

In operating, let it be supposed that two or more knives are intended to be fastened onto one cutterhead, rotating at a high velocity, and that it be conceded that they must not only be of the same specific weight, but must agree in their corresponding parts. Place each knife in succession on the platform of the balancing machine, with its face toward the end-board; with a suitable weight, at the opposite

Patent Proportional Knife Balancing Machine.

end of the beam; if by this test they all appear to be of the same specific weight, place them each in succession again, with their backs against the end-board; they may still appear to be of the same specific weight; place them each in succession flatwise on the platform, in as many different positions as they are susceptible of noting and reducing by an indefinite number of trials the edges which are found to be of excessive weight, until they all are reduced to the same weight in their corresponding parts. They will also then, of course, be of the same specific weight. The balance weights are made oblong, so that by putting the heavy end up, the entire mass, consisting of weight, beam and knife, may be poised near its centre of gravity, and thereby oscillate more sensitively. If, however, the object to be balanced be very heavy, the weight must hang down, or the upper portion of the mass may preponderate. It will be seen that the operator can make the poise more or less delicate, according to the varied positions of the knives to be balanced.

Further information and price relative to this valuable little machine will be gladly furnished by the manufacturers, the Defiance Machine Works, Defiance, Ohio.

The E. Long Manufacturing Co. Secure Important Contract

The E. Long Manufacturing Company, Limited, of Orillia, Ont., have recently been given the contract for the complete installation of machinery in the portable and stationary sawmills now being erected in the townships of Kendry and Haggart, Northern Ontario, as a part of the big colonization scheme undertaken by Willis K. Jackson, the millionaire lumberman, of Buffalo, N.Y., who recently purchased over 100,000 acres in the north. The large mill will have a capacity of 50,000 feet per ten hour day, and will be equipped with every modern improvement in the way of machinery.

B. Greening Wire Company's New Catalogue

We have received from the B. Greening Wire Co., Limited, Hamilton, Ont., an advance copy of their Wire Rope catalogue—an attractive, well illustrated booklet containing a concise description of the company's various lines in their wire rope department. This catalogue embraces practically every kind of wire rope used and its value is enhanced by the practical directions as to how to care for and use wire rope, showing the best kind of rope to use for various purposes. The products of the B. Greening Wire Co., Ltd., have long been recognized as standard in quality. The company have one of the finest manufacturing plants in the Dominion and everything that enters into their products is of the highest class material obtainable. Every condition where ropes are used has been a subject of careful research and study, always with a view to giving the consumer the article best suited to his particular requirements. Apart from its value to the trade this catalogue has an educational value, which the progressive reader will not likely pass over. Copies will be forwarded upon request to the company.

Important Agency Obtained by Canadian Fairbanks-Morse Co.

The Canadian Fairbanks-Morse Company, Limited, has secured the Canadian agency for the Orenstein-Arthur Koppel Company, of New York, consulting engineers and manufacturers of portable railways, industrial railways, narrow gauge sidings, narrow gauge public railways, and railway equipment of all descriptions. The works of the Orenstein-Arthur Koppel Company are located at Koppel, Pa. They have been in business thirty-five years and have built and developed industrial and narrow gauge railways of every description in all parts of the world. Their catalogue No. 400 covers their line very comprehensively, a copy of which no doubt can be obtained from the Canadian Fairbanks-Morse Company, Limited, of Montreal.

Pioneers in Double Band Cutting

The first double cutting band saw operated in Canada is in the mill of the J. D. Shier Lumber Company, of Bracebridge, Ont. It is one of the old Atlas make and was installed fourteen years ago. It has been running continuously ever since and Mr. Shier is a strong advocate of the double band saw over any other kind, claiming that it saves both in time and in lumber. The Shier mill has a capacity of from 35,000 to 40,000 feet per day. Besides the sawmill the company have a planing mill at this point which takes care of the large business they do around the Muskoka Lakes. Shipment of their sawmill stock is made by rail. Although well up in years, Mr. Shier is still very active and directs the mill operations personally. He is assisted by his four sons, who are with him in the business.

New Fay & Egan Catalogue

J. A. Fay & Egan Company, manufacturers of "The Lightning Line" of woodworking machinery, have just issued a new catalogue which is of interest to every owner and user of woodworking tools.

This catalogue, known as No. 86, is gotten up in a size convenient for handy reference and in its 352 pages are illustrated and described all of the many improvements made in woodworking machines during the past year.

The catalogue is really a text book on woodworking machines, and is evidently an expensive proposition to print and circulate. The Fay & Egan Company advise us, however, that they will be glad to send a copy, charges prepaid, to any owner or user of woodworking machinery who will address them on his own or company's letter-head as follows: J. A. Fay & Egan Company, 465-485 West Front Street, Cincinnati, Ohio.

The great forest fires which unfortunately occur almost every autumn, leave vast quantities of fire-klled timber. This timber is now being used extensively for many purposes, it being preferred in some cases to green lumber. Fruit growers are said to prefer it for packing boxes as it preserves the natural flavor of the fruit. Telephone poles and railway ties are also made from the fire-killed timber.

The Dominion Government recently passed an order in council forbidding lumber operators to float loose logs in the Muskoka River. It is presumed that the order is in the interest of owners of motor boats who make extensive use of this river. Unfortunately, however, the prohibition will be a serious hardship to the owners of sawmills who make use of the river for driving their logs.

Fifty-six per cent. of the pulp wood cut in Canada during the year 1911 was exported to United States. This fact is shown by the statistics collected by the Forestry branch of the Department of the Interior.

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Leather Belting

costs you less per day of service

it is therefore the least expensive belting---irrespective of "first costs" comparisons. Remember this "service-per-dollar-invested" basis when you tote up your belting expense.

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I have recently become interested in the **Lumber Vulcanizing Corporation of Canada, Limited,** and if you are in the market for a good, safe investment, call and see me, or write for information regarding the stock of this corporation.

This Company owns the Canadian Rights for the

"Howard" Vulcanizing Process

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(Incorporated under the Dominion Companies Act.)

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Testimonials from practical men who have personally investigated the process:

MR. CHARLES HADLEY, PRESIDENT OF THE S. HADLEY LUMBER CO., CHATHAM, ONT., writes:

"In answer to your enquiry as to my opinion of the vulcanizing and drying of wood under the 'Howard Process,' the piece of Norway Pine you sent me bearing your name has been thoroughly tested by the foremen in the different departments under my instruction, and I find that the wood that has been vulcanized is thoroughly dry and left free from any smell of dampness and the heart left in a sound condition so as to admit a very high polish. In working the **wood with the different machines it passes through as smoothly as** the old-fashioned cork pine; a sticker, a shaper or a planer, in my opinion, will plane more and leave the wood smoother than the ordinary dry pine, leaving any of the defects in the wood in a shape that will not tear or lift.

"Then another great advantage, it does away with carrying the wood for one or two years on sticks before kiln-drying, saving of all of the labor and piling, the ground space, and the interest on capital invested, insurance and other expenses in carrying the stock we have always had to carry, also the great saving over the ordinary way of drying on sticks, the loss by deterioration, which is no small sum.

MR. JAMES INNES, OF THE SUTHERLAND-INNES COMPANY, LIMITED, CHATHAM, ONT., one of Canada's important cooperage manufacturers, wrote on December 9th, 1911, as follows:

"I visited the plant of the Lumber Vulcanizing Corporation of Canada at the Don, Toronto, on the 24th ult., and looked into the process. I examined Gum Tight Staves, Lumber and Square Timbers which had been through the Cylinder and they appeared to be thoroughly dried without checking or warping and without discoloration; in fact, as bright as new sawn stock.

"The results accomplished in the short time necessary for treating are most satisfactory, and, in my opinion, the process has great merit."

MR. EDWARD CLARK, OF EDWARD CLARK & SONS, Lumbermen, Toronto, under date of July 27th, 1911, wrote as follows:

"In answer to your request for my personal views as to your vulcanizing process, will say that some months ago I went to your plant located in the Don Valley, this city, and saw 1-inch Birch, green from the saw, run through your process in twenty-four hours.

"Your process dried the wood thoroughly and the boards came out in good shape, being free from warp and check.

"I personally marked some of this lumber before it was placed in the Cylinder, being particular to know of my personal knowledge that the lumber treated was the same as that which I had seen go into the Cylinder.

"It is my opinion that there is a big field for your process in Canada, and if properly handled should prove a success."

I have only a limited amount of this stock for sale at what I consider a very attractive price. Call and see me, or write at your earliest convenience. Do not let this opportunity escape.

This is not Treasury stock as the Company is not offering any of its shares.

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The largest No. 10—30 has an oven 30×26×14 and six 10 inch covers. The oven of the 9—24 measures 24×26×14. The Tops of both are made of three heavy interchangeable Key plates. Both sizes can be fitted with waterfronts and the 9—24 with a 15 gallon copper reservoir tinned on the inside to prevent rust. Size of pipe collar 7½ inches. Length of wood fire box 31 inches. The body is of very heavy Bessemer Sheet Steel and is well braced and strengthened, Castings are made of the highest grade of pig iron.

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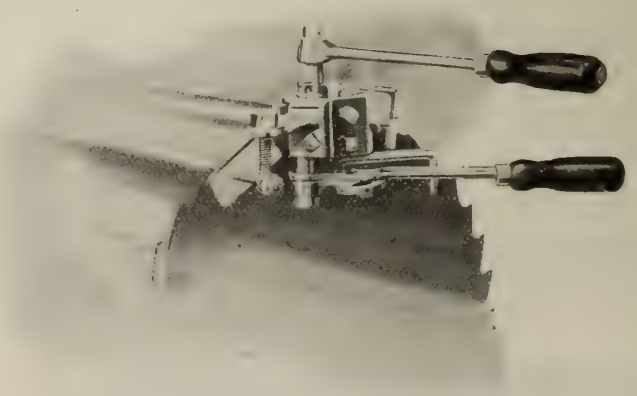

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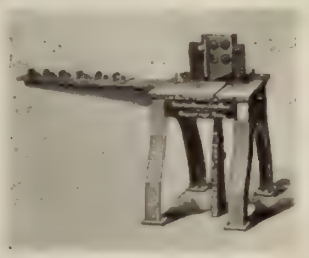

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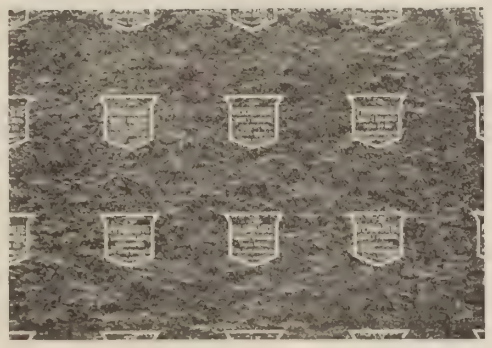

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"WHEN good fellows get together" you will find TUCKETT'S CIGARETTES in the crowds. They've "class" with those who know.

Fine pure leaf tobacco, properly cured and blended give them a flavor and fragrance that's altogether good.

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SILVER'S NEW JOINTERS

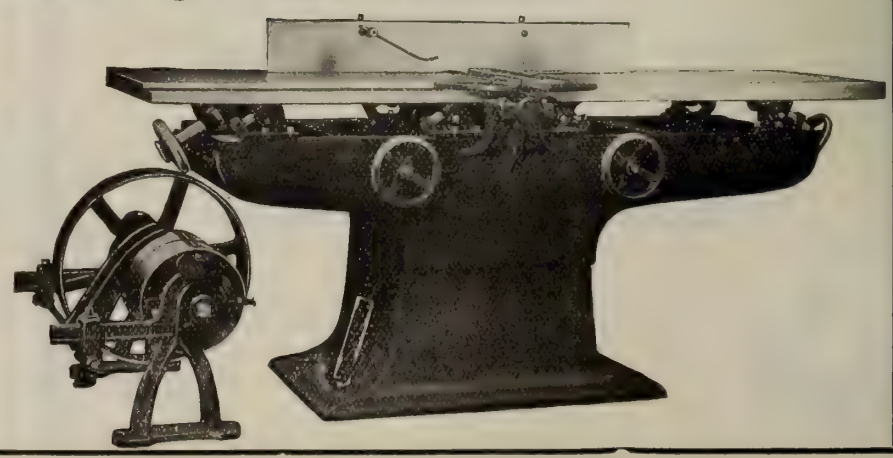
Band Saws, Saw Tables, Swing Saws

Thousands of Silver's Machines are earning big money in all parts of the world. Australia, New Zealand, South Africa and India are heavy buyers.

Silver's machines are designed for convenience and ease of operation and for rapid efficient service. Their moderate price recommends them to all wood workers.

Strong, durable, high pressure machines that will save you time an labor. Made in sizes to suit any need or any purse.

Ask for 1911 Machinery Catalog and special Canadian prices.



THE SILVER MFG. CO.

375 BROADWAY SALEM, OHIO

Shimer Cutter Heads and Cutters!

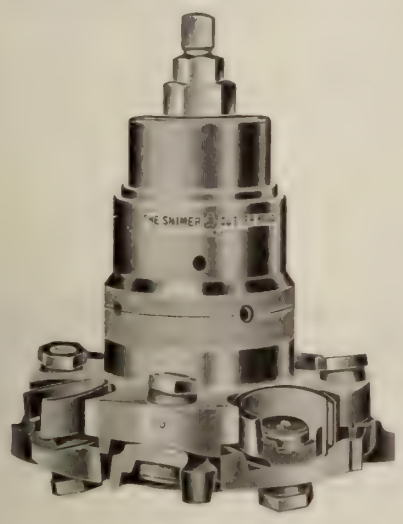


Fig. 627

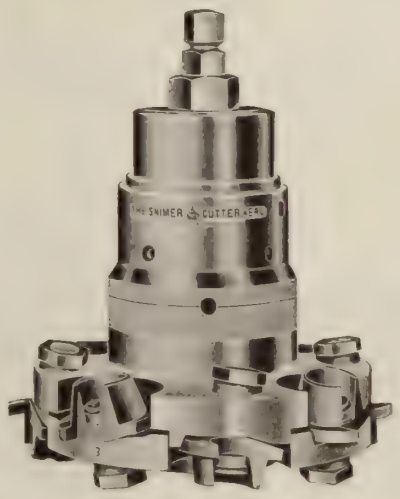


Fig. 628

The "Shimer Limited" with Expansion, price $72.46 per set, complete

The Ultimate Cost

of your Cutter Heads is the thing to be considered: that is the sum of the first cost plus the cost of maintenance. Sometimes the Ultimate Cost of a tool is twice or many times the first cost. Just when that time will come depends upon its wearing power or its liability to break and cause damage.

"Quality" has always been a special feature in Shimer Cutter Head construction and has been the means of keeping down the cost of maintenance. This quality feature of the Shimer Cutter Heads has been growing with the variety of tools put upon the market, until almost invariably wherever the name Cutter Head is mentioned the mill man is sure to think of the **Shimer** Cutter Head.

These tools are made for many varieties of work. For matching Flooring, Ceiling, Wainscoting, etc., they are made to suit machines from the slowest to those taking stock 150 to 170 lineal feet per minute, and are sold at prices ranging from $26.00 per set for Figs. 1 and 2 to $72.46 for our Shimer Limited Cutter Head made especially for the fast feed matcher.

For any work you get out in quantity we can furnish tools that will save the "make-ready" time, lessen the amount of material going into the offal pile and turn out a quality product at a saving that will soon pay for the tools.

Let us know your Cutter Head conditions. We are sure we can serve you acceptably, as we have so many others, in making either regular or special tools for your particular work.

Write us now!

Popular Cutter Heads

The most popular of The Shimer Cutter Heads are Figs. 202 and 203. The Bits are held within conical duplex bit seats, self-centering, arranged with the very complete Expansion feature for the fine adjustment of tongue and groove thicknesses.

Price with 4 bits to each head, the set $40.95
Price with 6 bits to each head, the set 49.27
Price with 8 bits to each head, the set 57.60

Complete with Flooring Bits. The Heads will also receive Bits for thin Ceiling—⅜ at $1.05 each and Bits for 2-in. thick plank at $1.63 each.

Jointer Heads

For jointing plain edges we make several styles of Jointer Heads provided with shearing effect to produce the easiest and at the same time the smoothest work. Made of Steel Forgings they supply the strongest and best. Our very reasonable prices put the tools within the reach of all.

Price, with 4 bits to each head, the set, 1¼-in. $31.20
Price, with 4 bits to each head, the set, 2-in. 33.28

Ship Lap Heads

to give you the best service must be of a kind that is always ready and in interchange with matcher and other Heads you may have fitted to your machine, thus avoiding a change of machine guides. This is one reason why the Shimer Ship Lap Heads are so generally used. The other reason is that they do work so satisfactorily that all who know their convenience take them in preference to others.

Price, with 4 bits to each head, the set, 1½-in. thick, $34.84
Price, with 4 bits to each head, the set, 2½-in. thick 35.88

Double Ceiling Heads

These heads have a special design to suit the purpose of double tonguing and grooving, with overlapping of the bit cutting edges to produce perfect clearance and to protect the leading points from unnecessary friction and wear.

They double the capacity of any matcher or moulder and provide a means of turning out single surfaced ceiling or flooring upon the most economical basis.

Price, Double Ceiling Heads complete with Bits, net, $40.94

Door, Sash and Coping Tools

That save all the hand fitting. No changing of patterns, therefore, no trouble in framing the door and sash parts when they are matched up with the Shimer Cutter Head. We relieve you of that detail of the business when we place the mould in counterpart within the contour of the Bits. The Bits are filed only to sharpen and being set by means of a gauge give accurate and uniform results. Prices very reasonable.

Reversible and One Way Cutters

The Shimer Reversible Cutters for Single Spindle Shapers, Variety Moulders or Friezers, are carefully moulded opposite to the shape of the mould to be produced, in such a way as to have only the cutting edge touch the lumber. They are complete—inexpensive—time saving. We also make One-Way Cutters for the Double Spindle Shaper.

Thin Steel Knives

Advanced ideas referring to the planing and surfacing of lumber have developed into the use of the thin blades, made from high speed steel, which when properly tempered and treated, serve for one or two days of work on hard maple, oak or hickory.

These blades are known as our Bedee Knives and are recommended by users as the best that can be procured. For the benefit of those desiring to use this style of a knife we have facilities to furnish them in any length or thickness.

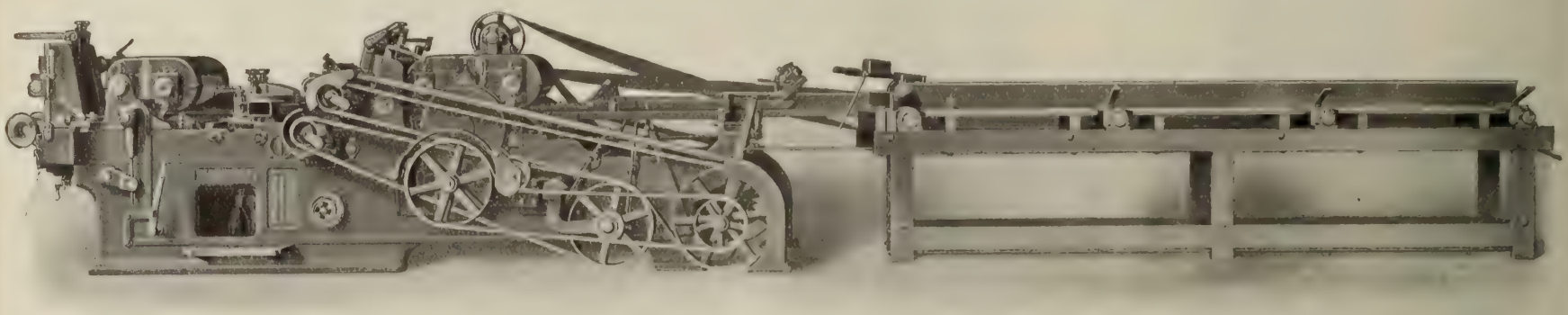
Write us about your requirements.

SAMUEL J. SHIMER & SONS,

Branch of **Milton, Pa., U. S. A.** **GALT, Ontario, Can.**

EVENTUALLY ONE OF "THE PLANERS OF WOODS" WHY NOT NOW?

It makes no difference whether your stock is knotty or cross grained, you obtain the highest grade production at fastest rates of feed. With our Automatic Feeding Table any feeder operating one of "The Planers of Woods" makes the output equal the machine's rating. Send for our No. 400 series Matcher Booklet. It tells you about it.



(Front View) WOODS No. 404 HIGH SPEED Planer and Matcher with an AUTOMATIC FEEDING TABLE—CAPACITY 200 to 300 LINEAL FEET PER MINUTE

Feeding table patent applied for

S A WOODS MACHINE CO

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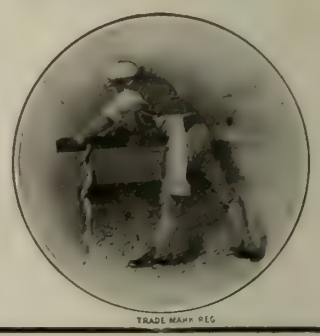
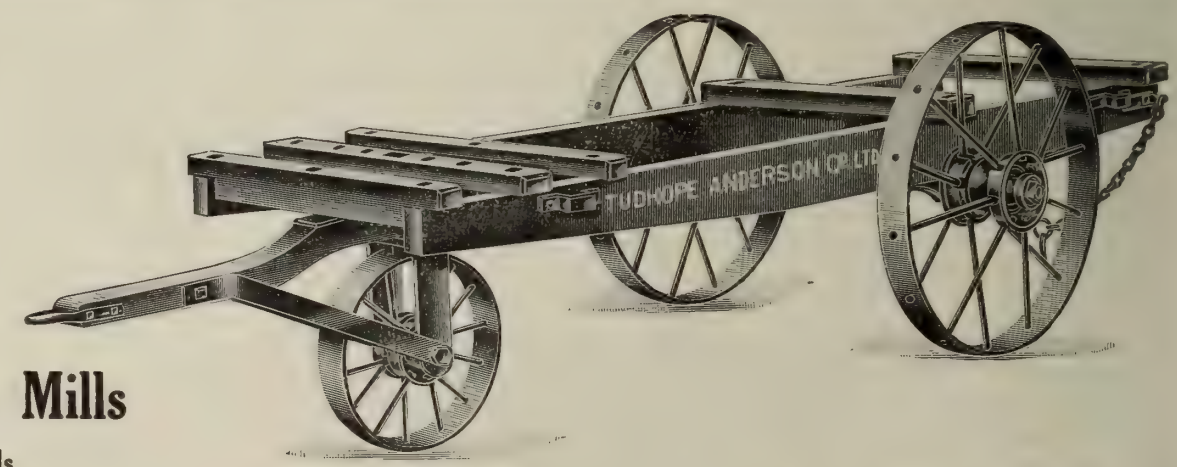
Seattle
Chicago



Three Wheel Lumber Cart

with Wide Tire Steel Wheels

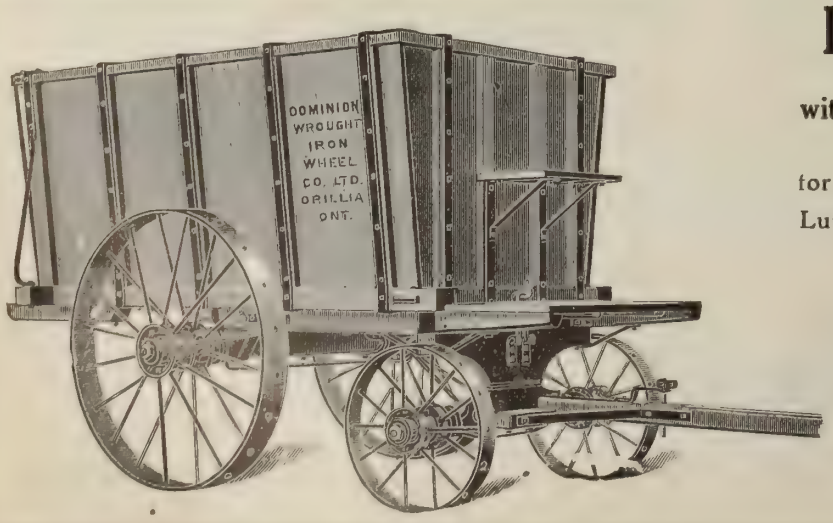
Used in trains or singly for platform work.



Dump Carts for Saw Mills

with Wide Tire Steel Wheels

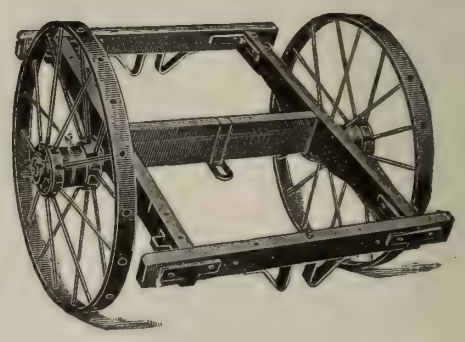
In ½, ¾ and 1 Cord Capacity—extra strong of thoroughly seasoned hardwood and bolted throughout.



Detachable Lumber Trucks

with Wide Tire Steel Wheels

for Saw Mills, Planing Mills, Lumber Yards, etc.



The Tudhope-Anderson Co., Limited

Successors to TUDHOPE-KNOX CO., LIMITED

ORILLIA - - ONT.

WRITE FOR ILLUSTRATED CATALOGUE

Can you say as much as this about the Matcher you are using?

E. B. Foss & Co.
WHITE PINE LUMBER
LATH & SHINGLES
ESTABLISHED 1877.

Bay City, Mich. April 24, 1912.

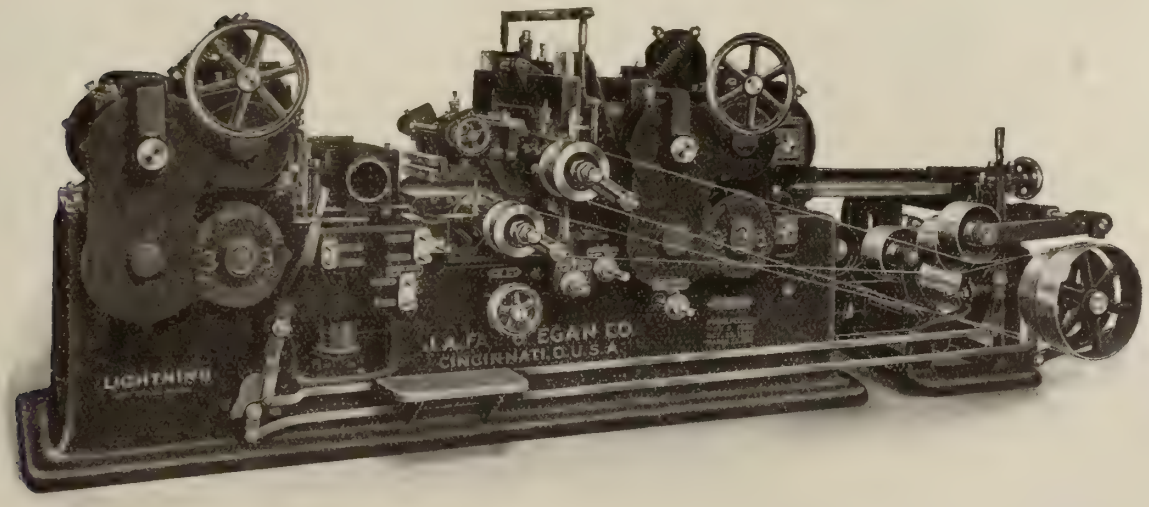
J. A. Fay & Egan Co.,
Cincinnati,
Ohio.

Gentlemen:-

As we are more than pleased with the #333 High Speed 15" Planer and Matcher we think that you are entitled to know what we think of this machine, which has been in operation in our mill daily for several months. Your representative when selling us this machine lead us to believe that it was a wonder and would do whatever any other fast machine would do and then some. We have found from actual test that this machine is a wonder and will do anything that any machine could be expected to do. We have been running from 210 to 225 feet of White Pine lumber per minute and have not lost any time on account of hot boxes or any other reason. It is a common occurrence for us to run 25,000 feet of 10" Double Beaded Ceiling in 3 hours. We found this machine to be very simple in setting up and not as complicated as we thought it would be. You can rest assured that when we are in the market for anything in the fast machine line that your machines will have first chance.

Yours truly,
E. B. Foss & Co.

WIF/LT



Write us today about this wonderful Fast Feed Matcher—the Fay-Egan—"LIGHTNING—Three-Double-Three."

J. A. FAY & EGAN CO.

Executive Offices and Works:
465-485 W. Front St., Cincinnati, Ohio
SALES OFFICES:
New York, Chicago, New Orleans, St. Louis, Seattle

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$60 00	65 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better..	67 00	72 00
1½-in. No. 2 C & B	50 00	52 00
2-in. No. 2 cuts and better ..	56 00	60 00
1½-in. No. 1, 2 and 3 Cuts ..	48 00	50 00
2-in. No. 1, 2 and 3 Cuts ...	43 00	50 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	23 00	25 00
1 x 6 common and dressing..	26 00	28 00
1 x 8 common and dressing ..	27 00	29 00
1 x 10 common and dressing ..	30 00	32 00
1 x 12 common and dressing..	39 00	41 00
1x10 and 12 mill cull stocks ..	21 00	22 00
1-in. mill cull sidings		18 50
2 x 10 common	27 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	22 50	23 50
1 x 10 inch box and common.	24 00	25 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	24 00	26 00
1-in. mill run shorts		18 00
1-in. dead cull sidings		14 00
1¼-in. flooring		28 00
1-in. mill run Norway		22 00
2-in. mill run Norway		25 00
Norway, c and cf 1-in.	33 00	34 00
Norway, c and cf 1½-in.	35 00	38 00
Norway, c and cf 2-in.	33 00	35 00
Spruce mill run	21 00	22 00
Spruce mill culls 15 00		16 00
Clear in. B.C. cedar, kiln dried	55 50	65 50
Douglas Fir		
Dimension Timber up to 32 feet:		
8, 10x10, 10x12, 1x14, 12x12, 12x014, 14x14, 14x16.....		34 00
8x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 14x18, 16x18 18x18, and 20x20		34 50
6x14, 8x14, 12x18, 18x20		35 00
6x16, 8x16, 10x18, 12r20, 14x20, anh 16x20		35 00
10 x 20		36 00
6 x 18, 8 x 18		36 50
6 x 20, 8 x 20		37 50
Lengths over 32 ft. take the following advances: 33 to 35 ft., 50c.; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5.		
Fir flooring, eoge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		45 10
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 10
1½-in. No. 1 4-ft. pine lath..		4 50
1½-in. No. 2 4-ft. lath		4 00
1½-in. 32-in. pine		1 60
1½-in. No. 1 4-ft. hemlock lath		3 75
1½-in. mill run hemlock lath.		3 50
X pine or cedar shingles		1 05
XXpine or cedar shingles ...		2 25
XXX pine or cedar shingles ..		3 20
XX B. C. cedar shingles		2 30
XXX 6 butts to 2-in.		3 30
XXXX 6 to 23-16-in.		3 52
XXXXX		3 75
Hemlock No. 1:		
1x4 & 5-in. x 9 to 16 ft. ...		16 50
1 x 6-in. x 9 to 16-ft.		19 50
1 x 8-in. x 9 to 16-ft.		20 50
1 x 10 and 12 in. x 9 to 16 ft.		21 00
1x7, 9 and 11 in. x 9 to 16-ft.		19 00
1-in. No. 2, 6-ft. to 16-ft. 2x4 to 12-in., 6-ft. to 16-ft.		14 50
2x4 to 12-in., 12 and 14 ft. ..		19 50
2x4 to 12-in., 18 ft.		22 00
2x4 to 12-in. 20 ft.		23 50
2 x 4 to 12-in., 22 ft.		25 50
2 x 4 to 12-in., 24 ft.		28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		15 50

Hardwoods—Per M. Feet, Car Lots

Ash white, 1sts and 2nds, 1½ and 2-in.	55 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	48 00
Ash, brown, common and better	37 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	55 00
Birch, 1sts and 2nds, 4/4	35 00
Birch, No. 1, com. and bet., 4/4	30 00
Birch, 1sts and 2nds, 6/4 and 8/4 ..	38 00
Birch, 1st and 2nds, 10/4 and 12/4 ..	42 00
Birch, 1sts and 2nds, 16/4	44 00
Basswood, 1sts and 2nds, 4/4	38 00
Basswood, No. 1, com. and bet., 4/4.	30 00
Basswood, No. 2 and 3, common ...	17 00
Basswood, 6/4 and 8/4, 1sts and 2nds	40 00
Basswood, 6/4 and 8/4, com. & bet...	37 00
Basswood, No. 2 common and better.	25 50
Soft elm, 1sts and 2nds, 4/4	35 00
Soft elm, No. 1 com. and bet., 4/4 ..	29 00
Soft elm, No. 2 and 3, common	16 00
Soft elm, 6/4 and 8/4 1 and 2	38 00
Soft elm, 3-in. 1sts and 2nds	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4 ..	50 00
Rock elem, No. 2 com. & bet. 6/4 & 8/4	37 00
Soft maple, 1sts and 2nds, 4/4 31	00
Soft maple, com. and better, 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	34 00
Hard maple, 1sts and 2nds, 4/4	34 00
Hard maple, common and better, 4/4.	27 00
Hard maple, 12/4 & 16/4, 1sts & 2nds.	43 00
Red oak, plain, 1sts & 2nds, 4/4...	55 00
Red oak, plain, 1sts & 2nds, 6/4 & 8/4	60 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	65 00
White oak, plain, 1sts and 2nds, 4/4..	55 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	60 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	70 00
White oak, ¼ cut, 1sts & 2nds, 4/4..	83 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	87 00
White oak, ¼ cut No. 1 common ...	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up $53 00		55 00
1¼-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up ..	40 00	45 00
Pine good strips:		
1-in.	40 00	44 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	50 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	38 00	40 00
1-in. x 4-in. to 6-in.	30 00	35 00
1¼-in. and 1½-in.	45 00	50 00
2-in.	48 00	52 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings ..	33 00	35 00
Pine, No. 1 dressing strips ..	26 00	31 00
Pine, No. 1 dressing shorts ..	22 00	26 00
Pine. 8 s.c. and better, 12 ft. to 16 ft.	23 00	24 00
Pine, 7 up s. c. siding 1-in....	22 00	25 00
Pine s. c. sidings 1½ & 2-in...	26 00	30 00
Pine, s. c. strips 1-in.	17 00	19 50
1¼, 1½ and 2-in.	22 00	24 00
Pine, s.c. shorts, 1 x 4	20 00	21 00
Pine, s.c. and bet. 1x5	21 00	22 00
Pine, s.c. and bet. 1x6	23 50	25 00
Pine, box boards:		
1"x4" and up 6'-11'	13 00	14 00
1"x3" to 6", 12'-16'	15 00	16 00
1"x7" and up 12'-16' 16	00	17 00
Pine shorts 6'-11' 1"x10"....	20 00	21 00
1x8 and 9 No. 1 barn	25 00	27 00
O. culls r & w p	10 00	12 00
Red Pine log run, mill culls out, 1-in.	14 00	16 00
mill culls out, 1¼-in.	16 00	18 00
mill culls out, 1½-in.	17 00	19 00
Mill run Spruce:		
1"x4" and up, 6'-11	14 00	15 00
1"x4" and up, 12'-16'	16 00	17 50
1"x9"-10", & up, 12'-16'...	18 00	19 00
1¼"x7" 8-9" & up, 12'-16'	18 00	20 00
1¼"x10" and up, 12'-16' ..19	00	20 00
1½" & 2"x12" & up, 12'-16'	24 00	25 00
Spruce 1-in. clear (fine dressing and B)	24 00	27 00
Hemlock 1-in. cull	10 00	12 00
Hemlock 1-in. log run	13 00	14 50
Hemlock 2x4, 6, 8, 10, 12/16'	14 00	16 50
Tamarac	13 00	15 00
Basswood log run, dead culls out	20 00	22 00
Basswood log run mill culls out	24 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
Pine, s.c. and better, 1x7	21 50	23 00
Pine, sc. and better, 1x8 23	00	25 00
Pine, s.c. and better, 1x9	23 00	25 00
Pine, s.c. and better, 1x10 ...	25 50	27 00
1 x 10 No. 1 barn	30 00	33 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	20 00	22 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	14 00	15 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	11 00	13 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	3 75	4 00
No. 2 White Pine	3 00	3 25
Mill run white pine	3 25	3 50
Spruce, mill run 1½-in.	2 75	3 00
Red pine mill run	2 75	3 00
Tamarac mill run	1 25	2 00
Basswood, mill run	2 00	2 50
Hemlock, mill run	1 75	2 25
32-in. lath	1 25	1 75
Pine Shingles		
xxxx, 18-in.	3 50	4 00
Clear butt 18-in.	2 50	3 25
xx, ...	1 50	1 75
White Clear Shingles:		
xxxx, 18-in.	4 00	4 25
Clear butt, 18-in.	2 50	3 00
18-in. xx	1 60	1 85
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

	cts.	
First class Ottawa waney, 18-in. average, according to lineal	85	90

Oak—Michigan and Ohio

By the dram, according to average and quality	62	67

Elm

By the dram, according to average and quality, 40 to 45 feet	80	83
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash

13 inches and up, according to average and quality	25	30
Average 16 inch	30	40

Birch

14 inch	18	20
15 inch	22	24
16 inch	26	28
18 inch	32	30

Quebec Spruce Deals

	Per M.	
12 feet and up x 3 x 9 and up	18 00	19 00
Oddments	15 00	16 00
Boards, 1 and 2 in.	15 00	16 00

Birch Planks

1 to 4 in.	16 00	17 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	54 00
1 in., 8 in. and up wide	67 00
1¼ and 1½ in. and up wide	69 00
2 in. and up wide	72 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	67 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	47 00
1¼ in., 8-in. and up wide	57 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½-in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	48 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide...	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	22 00
1-in. x 5-in.	24 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	30 00
1-in. x 12-in.	35 00
1-in. x 13-in. and up	35 00
1¼, 1½ and 2-in.	32 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch 21	00 28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00 25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	20 00 22 00
No. 2, 1¼, 1½, 2-in.	17 00 21 00

Mill Culls

Mill run culls, 1-in.	16 00
1, 1¼, 1½ and 2-in.	18 00
No. 2 14	00 15 00

Lath

No. 1, 32-in. pine	1 50
No. 2, 48-in. pine	3 75
No. 3, 48-in. pine	3 00
No. 1, 48-in. pine	4 25
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft	8 ft	10 ft	14x16 ft
2 x 4	14 00	17 00	20 50	18 50
2 x 6	16 50	17 00	20 50	18 50
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14 16	20 50
2 x 4-10 18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch $18	50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Dimensions, S. 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
.....	27 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	59 00
B. C. Fir E. G. No. 1 and 2 flooring	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine mixed widths	20 00
No. 4 common pine, mixed widths ..	14 50
No. 5 common pine, mixed widths ..	10 00

SHINGLES

XXX B. C. Cedar	$2 90
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	**32 00**
No. 2 Cuts 5/4	43 00

(Continued on page 68)

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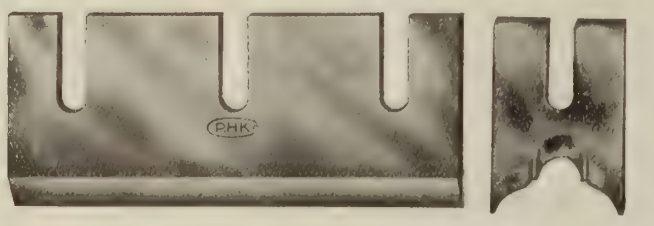

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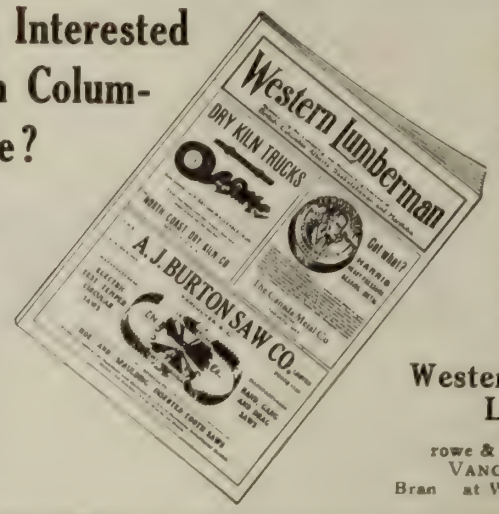

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Our stoves are specially designed to meet all requirements of camp work.

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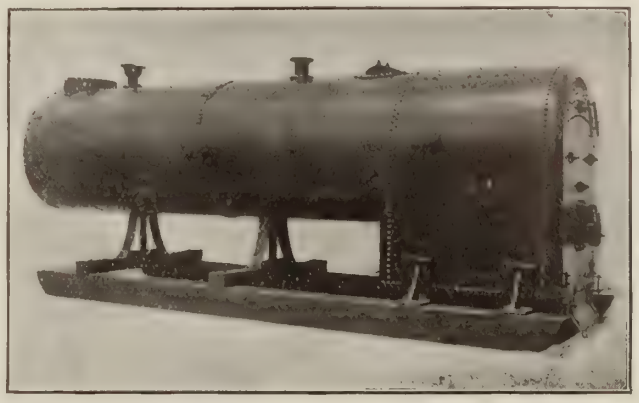

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Will quickly expel all kinds of worms.

International Distemper Cure
For Coughs, Colds, and Distemper.

International Colic Cure
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International Compound Absorbent
Greatest Curb cure on Earth.

International Gall Cure
Cures while horses work or rest.

International Foot Remedy
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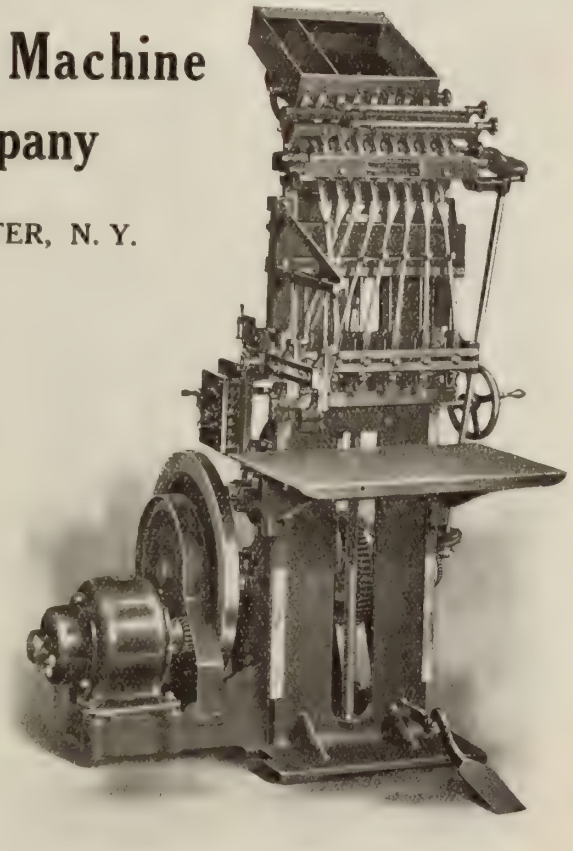

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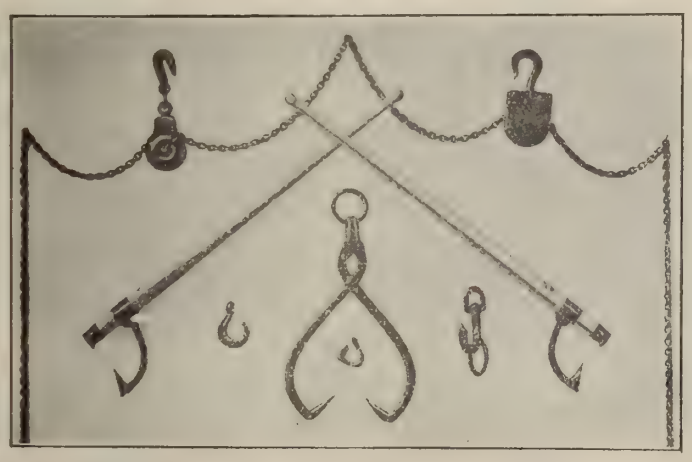

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No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00
No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	46 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	30 00
No. 2 Barn 1 x 10	32 00
No. 3 Barn 1 x 6 and 8	23 00
No. 3 Barn 1 x 10	25 00
Box 1 x 6 and up	22 00
Box 1 x 10	23 00
Box 1 x 12	25 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

White Ash

1st and 2nd, 1 inch	40 00	42 00
1¼ to 2 inch	44 00	46 00
2¼ to 4 inch	48 00	54 00
Strips	22 00	24 00
Common and culls	14 00	22 00

Black and Brown

1st and 2nd, 6 inch up	40 00	42 00
Common good culls	14 00	20 00
1st and 2nd 6 inch and up, red	40 00	42 00
1st & 2nd, white, 6 in. & up	30 00	32 00
Common and good culls	16 00	18 00

Elm

1st and 2nd, rock, 6 in. and up	34 00	38 00
Common and culls	16 00	20 00
1st and 2nd, soft, 6 in. and up	28 00	32 00
Common and culls	13 00	18 00

Maple

1st and 2nd hand	26 00	28 00
Common and culls	14 00	22 00
1st and 2nd, soft	26 00	28 00
Common and culls	14 00	22 00

BOSTON, MASS.

White pine uppers, 1 to 2 in.	$99 00	100 00
Selects, 1 to 2 inch		90 00
Fine common, 1 in.		72 00
Fine common, 1¼ to 2 in.	74 00	75 00
No. 1 Cuts 1 in.		45 00
No. 1 Cuts 1¼ to 2 in.	58 00	60 00
No. 2 Cuts, 1 in.	35 00	37 00
No. 2 Cuts, 1¼ to 2 in.	45 00	48 00
Barn Boards, No. 1, 1 x 12	50 00	52 00
No. 1, 1 x 10		38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12		43 00
No. 2, 1 x 10	35 00	37 00
No. 2, 1 x 8	34 00	35 00
No. 3, 1 x 12	33 00	34 00
No. 3, 1 x 10	28 00	29 00
No. 3, 1 x 8	28 00	29 00
Canadian spruce boards	23 00	24 00
Spruce, 10 & 12 in. dimension	26 00	27 00
Spruce, 9 in. and under "		25 00
10 and 12 in. random lengths, 10 ft. and up	24 00	25 00
2 x 2, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3x4 random lengths, 10 feet and up	20 00	22 00
All other random lengths, 7" and under, 10 ft. and up	21 00	22 00
5 inches and up merchantable boards, 8 ft. and up, p 1s		19 00
Vermont spruce boards, matched	22 00	23 00
1 x 2 and 1 x 3 furring, p 1 s clipped and bundled	19 00	21 00
1½-in. spruce laths	4 00	4 10
1½-in. spruce laths		3 60

New Brunswick Cedar Shingles

Extras	$3 60	$3 75
Clears	3 25	3 40
Second clears		2 75
Clear whites		2 30
Extra 1s (Clear whites out)	1 45	2 25
Extra 1s (Clear whites in)	1 50	1 60
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 50	4 00
Red Cedar Eurekas, 18-inch. butts to 2-in.		4 20
Red Cedar Perfection, 5 butts to 2¾		4 75
Washington 16-in. 5 butts to 2-in. extra red cedar		3 50

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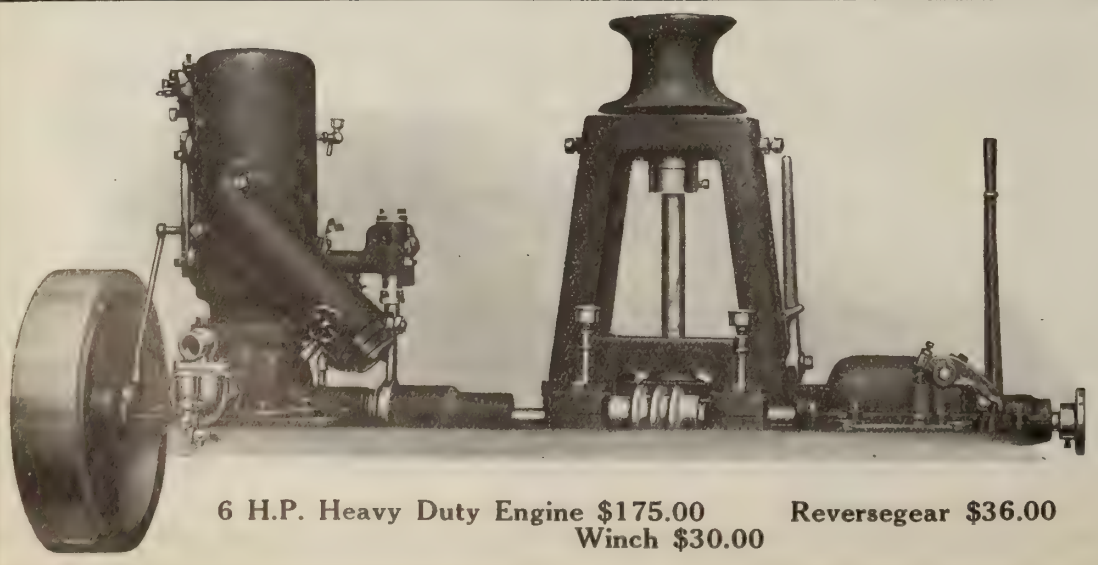

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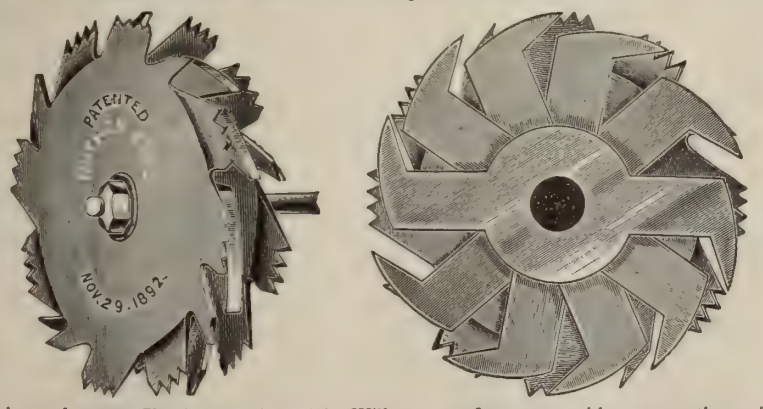

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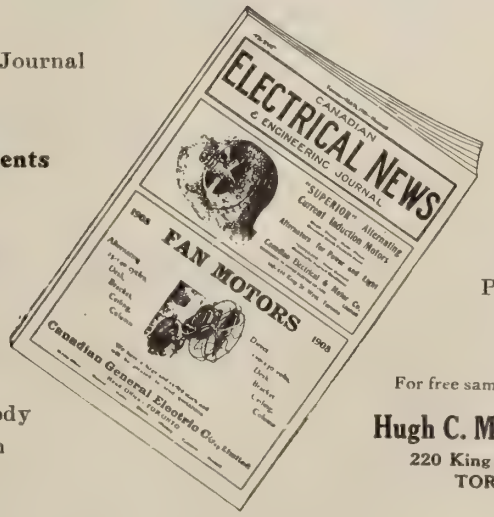

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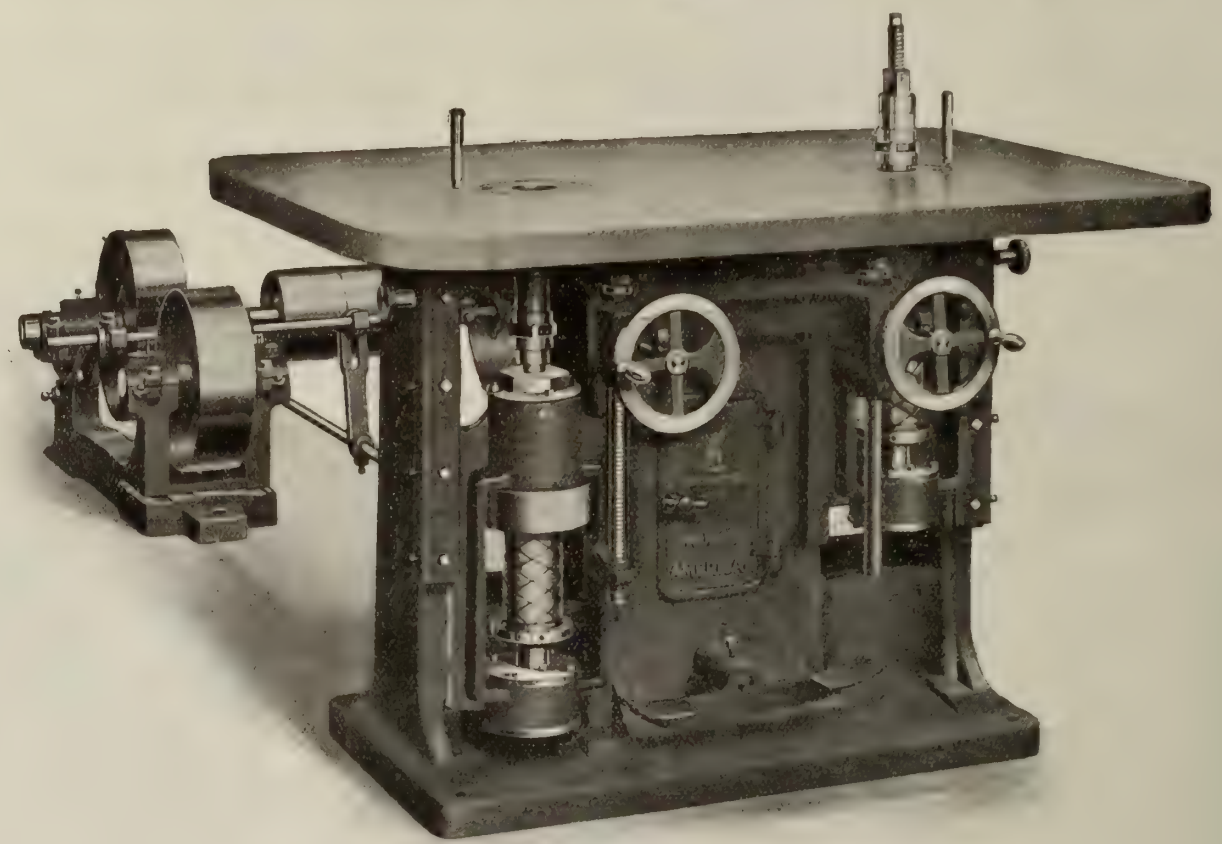

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It may mean much help to you in the long run to send for catalogues now.

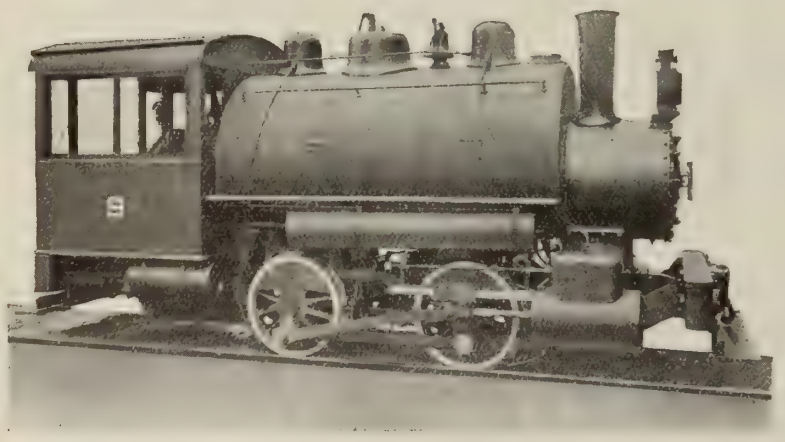
The General Supply Co. of Canada, Limited

356-58-60 Sparks Street, OTTAWA, ONTARIO

Market and Louise Sts., WINNIPEG, MAN. - - 115-125 Adelaide St. West, TORONTO

INDUSTRIAL LOCOMOTIVES

FOR BURNING COAL, WOOD OR OIL



Our locomotives are not built for one job only. They are built to last for years in the hardest service with a minimum expense for upkeep. This is the only proper way to build them.

Facility for making repairs when parts wear out was carefully considered in the design of our standard locomotives. Every detail is made with a view to securing the greatest possible reduction in the expense of repairs. Interchangeability reduces the time the locomotive is idle when repairs are necessary, as like parts will fit any other locomotive of the same size and design.

Consider the reduction in your profits when your locomotives are waiting for repairs.

Interchangeable parts, sure to fit, are kept in stock at all times and can be shipped at short notice.

MONTREAL LOCOMOTIVE WORKS

Dominion Express Building, MONTREAL, CANADA

Makes It's Mark Vivid and Lasting

Marks that remain vivid and wear like iron are a real satisfaction to the man who handles lumber. The metallic pigments, like graphite, of DIXON'S LUMBER CRAYONS offer marvelous resistance to all kinds of weather conditions. Their marks are often visible after six months of severe exposure to sun and storms.

DIXON'S LUMBER CRAYONS

have always remained the recognized standard because of their one, uniform and dependable quality; their convenient and uniform shape and size and because of the careful selection of materials used in their manufacture. DIXON'S LUMBER CRAYONS are made in nineteen grades and colors, including black (six grades), red (two grades), blue (two grades), green, white, yellow, brown, terra cotta, violet, pink and orange. Some are made to fill particular needs—let us tell you more about them. Get acquainted.

Write for lithographed booklet No. 288, illustrated in colors

Joseph Dixon Crucible Company
Jersey City, U. S. A.

James W. Sewall
Forester and Surveyor

Mapping and Surveying of Wild Lands
Estimation of Timber and Working Plans

(Formerly forestry manager of the Appleton & Sewall Co.)

16 Centre Street
Old Town, Maine, U.S.A.

"John Bull" *Larrigans*

Wear Like Iron

WE tan the leather these larrigans are made from and know they will stand all kinds of wet and rough usage when properly cared for. We put a counter stiffener in our larrigans and sew it in with the leg when soled and heeled—a very durable feature in our goods.

Next time you buy larrigans see that you ask for **"John Bull."**

R. M. Beal Leather Co.
Limited
LINDSAY, Ontario

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

HEISLER GEARED LOCOMOTIVES

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works
ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

D. G. Cutler Co.
Duluth, Minnesota

Distributors of

Kelley Island Lime—(Lighthouse Brand)

Burned with WOOD, from selected Ohio bottom Rock, and packed fresh from the Kilns, in new, tight, double-headed barrels.

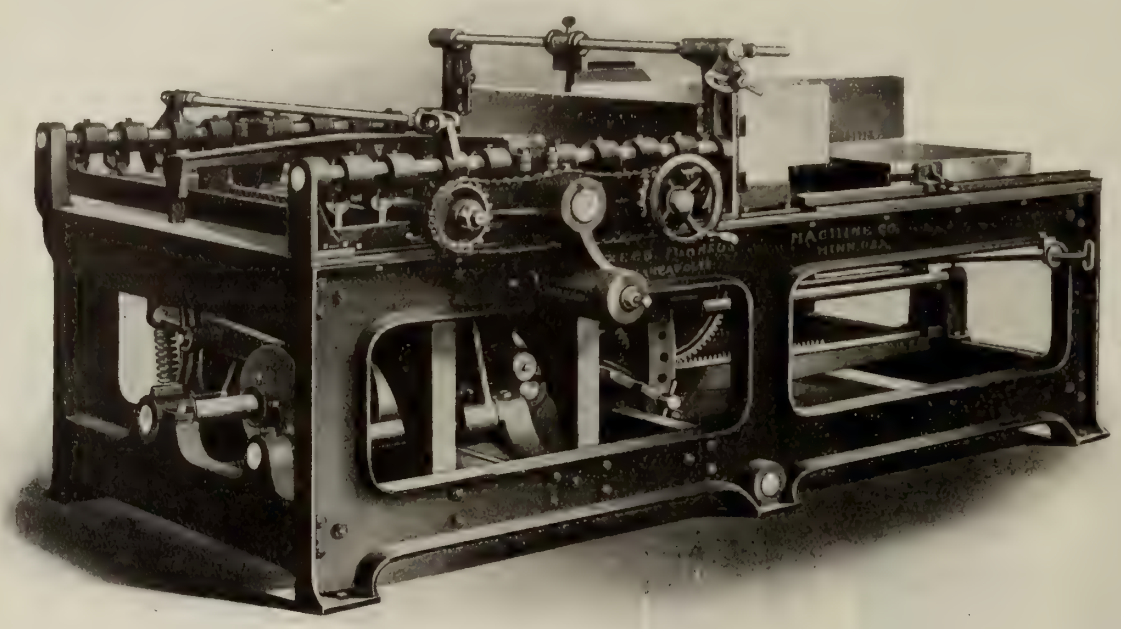
Can also ship you in Mixed Carloads

Hard Wall Plaster, Wood Fibre Plaster, Hydrated Lime, Mortar Colors, Waterproofing.

Distributors of HURON PORTLAND CEMENT

Wire Us Your Orders for Prompt Shipment

BOX MAKING MACHINERY



IS We are specialists in the building of box making machinery, and we have designed and built machinery for the foremost box factories of America.

The illustration shows our Automatic Box-Board Squeezer. It is built in four sizes and will assemble all kinds of matched stock used for packing boxes.

This machine can be changed to handle entirely different sized stock in two minutes. It saves labor by making the tonguesand groovesfit tight.

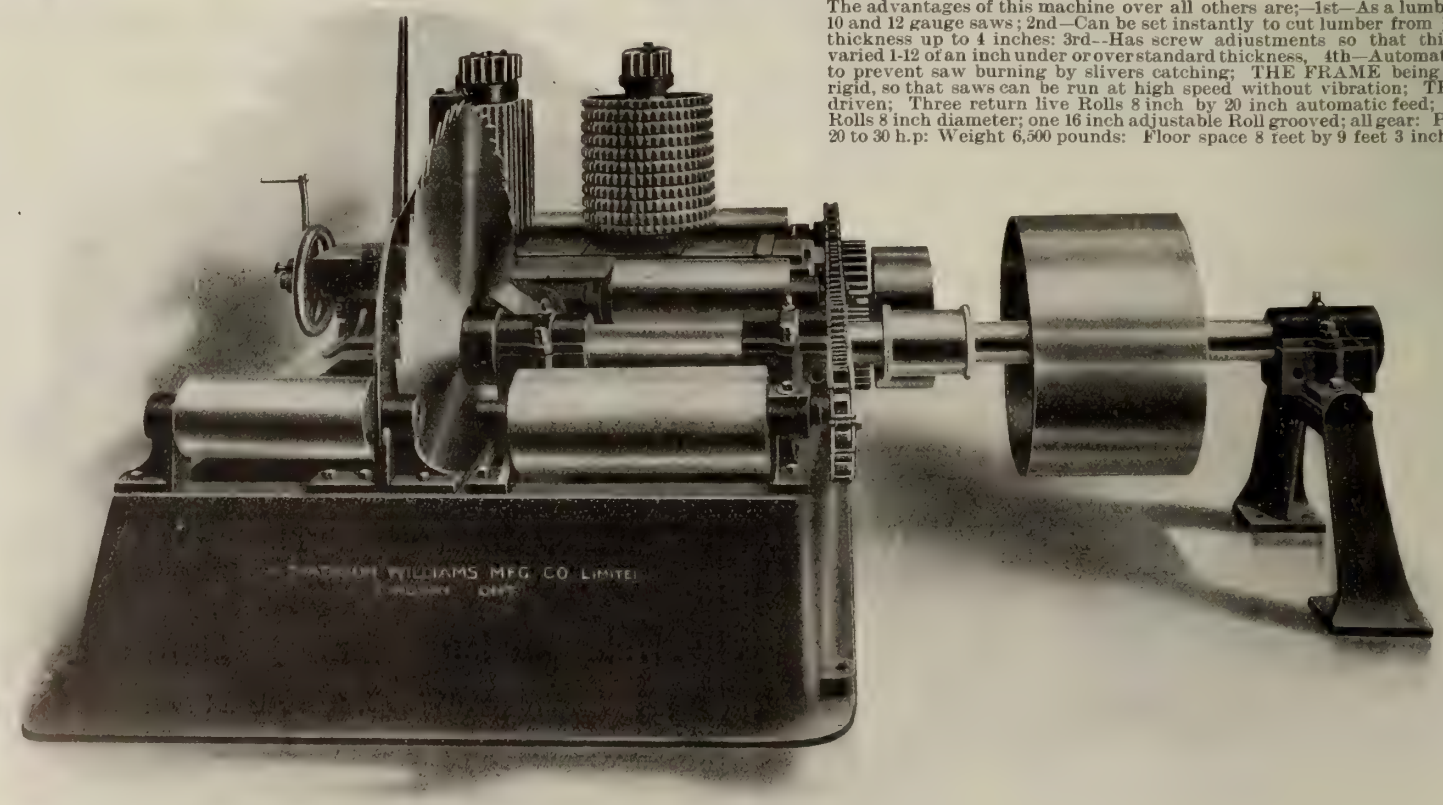
WE ALSO MANUFACTURE:

Horizontal Slab Resaws, Horizontal Hopper Feed Box Resaws and many other Special Box Factory Machines.

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.

JOHNSTON RE-SAW is a Lumber Saver and a Money Maker

The advantages of this machine over all others are;—1st—As a lumber saver using 10 and 12 gauge saws; 2nd—Can be set instantly to cut lumber from ½ inch to any thickness up to 4 inches: 3rd--Has screw adjustments so that thickness can be varied 1-12 of an inch under or over standard thickness, 4th—Automatic adjustment to prevent saw burning by slivers catching; THE FRAME being heavy is very rigid, so that saws can be run at high speed without vibration; THREE POINT driven; Three return live Rolls 8 inch by 20 inch automatic feed; Two grooved Rolls 8 inch diameter; one 16 inch adjustable Roll grooved; all gear: Power required 20 to 30 h.p: Weight 6,500 pounds: Floor space 8 feet by 9 feet 3 inches:



THE MADISON WILLIAMS MFG. CO., Limited, Lindsay, Ontario

Builders of Sawmill Machinery and 'Triumph' Turbine Water Wheels

Eastern Representaive: H. E. Plant, 1790 St. James St., Montreal, Que.

Western Representative: The Canadian Fairbanks Co., Vancouver, B.C.

Wire Rope

For Every Requirement

We are specialists in the manufacture of wire rope. We can ship from stock any length or size of the wire ropes usually supplied and can manufacture specially a rope exactly suitable for your requirements. Perhaps you are having wire rope troubles—if so—drop us a line advising us your requirements and we will be pleased to make suggestions as to the class and style of rope you should use. We have had years of experience—and should know.

The Dominion WIRE ROPE Co., Limited
MONTREAL
General Supply Company of Canada Ltd.—Winnipeg Agents

MAPLE LEAF BELTING

Strong
Waterproof
True
Running

For
Indoor or
Outdoor
Work

¶ Maple Leaf is the most economic and efficient belting for power transmission and conveying, etc.

¶ It costs only half as much as leather and 25 per cent less than good rubber belting.

Write for sample and prices to the sole manufacturers

DOMINION BELTING CO.
HAMILTON, CANADA

We Make a Specialty of Filling Orders
FOR
CAMP SUPPLIES
OF
Groceries and Provisions

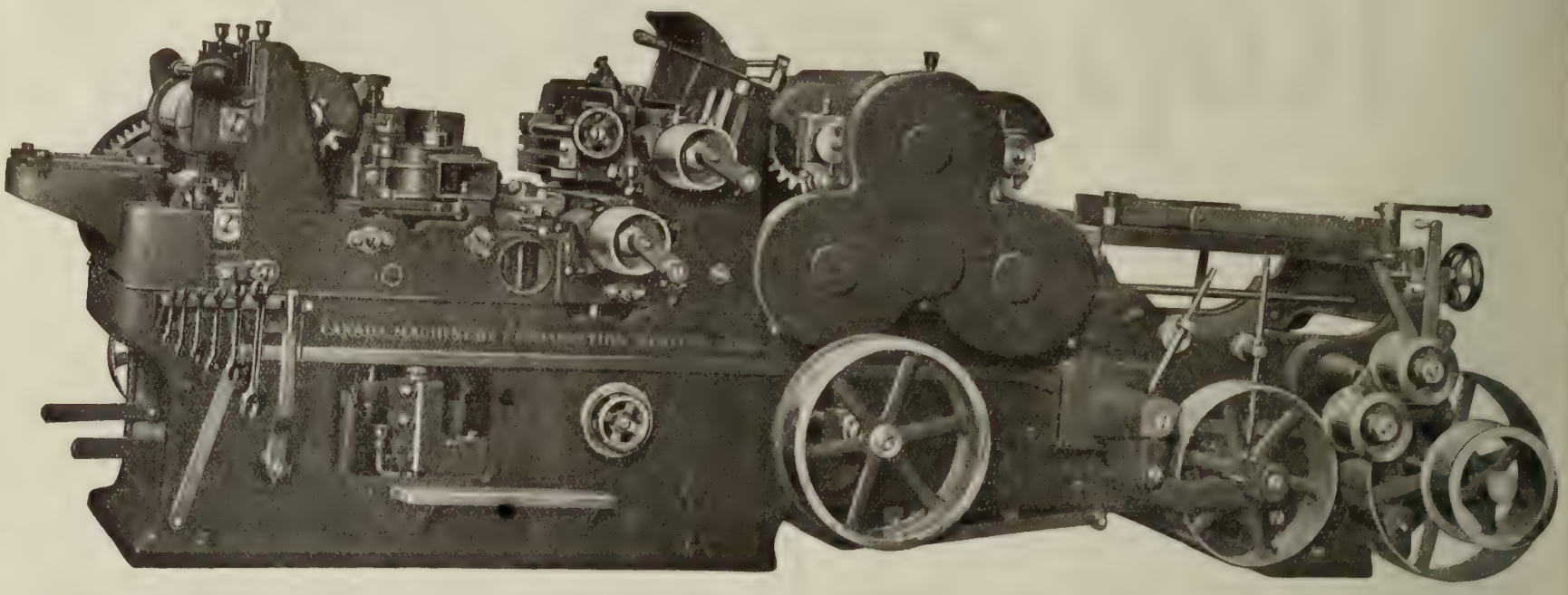
RIGHT PRICES QUALITY GUARANTEED PROMPT SHIPMENT

H. P. ECKARDT & COMPANY
WHOLESALE GROCERS
Cor. Front and Scott Sts. - - TORONTO

No. 122 MATCHER

C.M.C.

No. 122 MATCHER



C.M.C. No. 122 Heavy Duty Fast Feed Planer and Matcher

CYLINDERS both top and bottom are of the round type equipped throughout with high speed knives.

SIDE HEADS either of the round type or of the Shimer pattern can be supplied as desired.

FEED consists of six 12 inch rolls under spring tension driven by accurately machine cut gears carefully guarded.

ALL DRIVES are either by belt or gears no chains being used to give constant trouble.

BELTS are all long and driven from a self contained counter shaft attached to the main frame, and are all tightened by one lever.

WORKMANSHIP is of the highest class.

PERFECT WORK is guaranteed at a speed of 200 feet per minute.

PROFILING ATTACHMENT can be fitted at the delivery end of a machine for making drop siding, casings, base board, etc.

JOINTING DEVICE can be supplied for truing irregular surfaces.

Full Details with Bulletins and Prices Supplied on Application

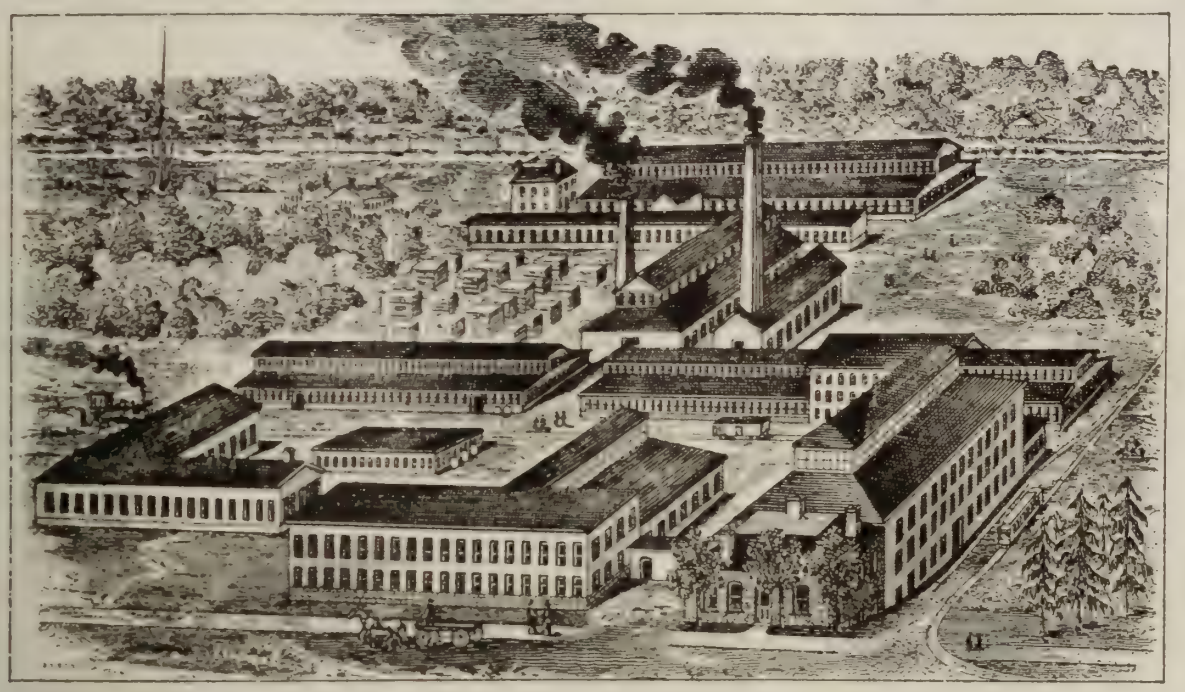
We Make the Most Complete Line of Wood-Working Machinery in Canada

Canada Machinery Corporation, Limited

Galt, Ontario

MAPLE LEAF SAWS

The Improved Racer Cross Cut Saw, by Actual Test, is the Fastest and Easiest Cutting Saw Made



The Maple Leaf saw is higher priced than the ordinary saw because it costs more to make it. It is made of the very highest quality of steel and tempered by a secret process which toughens and refines the steel. The Maple Leaf trade mark on the saw means that it is the equal, if not superior to any saw made. It also means that you are privileged to test it against any other make and if not found equal or superior in quality you can return it and have your money refunded.

The ambition of the manufacturers of the Maple Leaf Saws has always been to produce the best tempered saw in the world and they are constantly investigating and experimenting with this end in view. They have recently made some valuable discoveries in evenness of temper. It has always been difficult to get a perfectly even temper on long and thin sheets of steel, such as saws are made of. Our recent discoveries make this an absolute certainty. Every user of saws should bear in mind that the temper of the saw is its most valuable quality. High finish and attractive appearance amount to nothing if the temper is not right.

All Maple Leaf Saws are Guaranteed to be Perfect in Temper

Shurly-Dietrich Co., Limited Galt, Ontario

"JUMBO" Combined GANG and EDGER

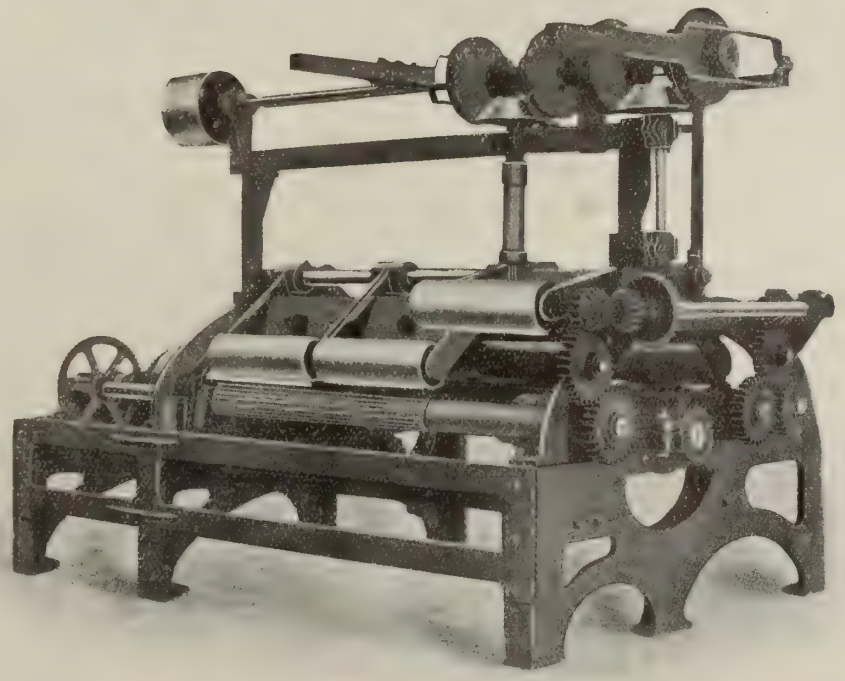
This is a very complete machine and embodies every detail of construction essential to an adequate gang edger.

We have some very flattering testimonials for our "JUMBO".

Mandrel: 4½ inches by 10 feet 6 inches long.

Drive Pulley: 20 inches by 20 inches.

Saws: 2 movable saws on edger side (more if desired) 8 stationary saws on gang side, 2 water boxes.



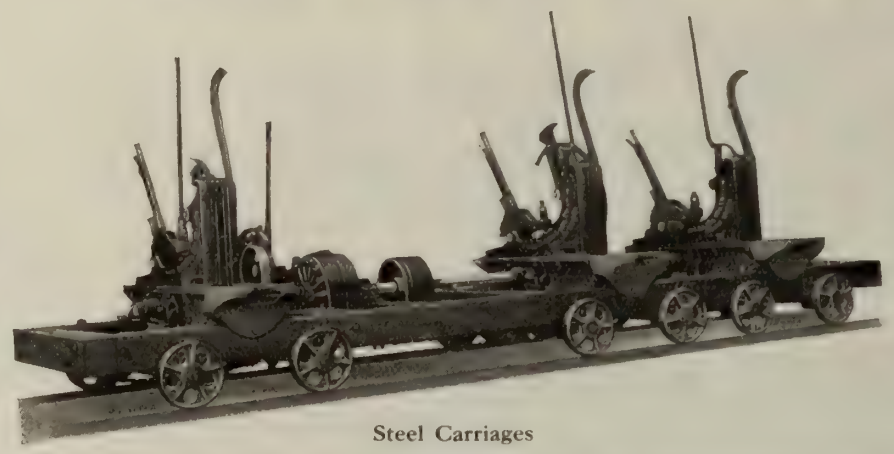
Our latest model is an improvement on the one illustrated above.

PRICES AND LITERATURE CHEERFULLY FURNISHED

MOWRY & SONS, Gravenhurst, Ontario

Long's Quality Machinery

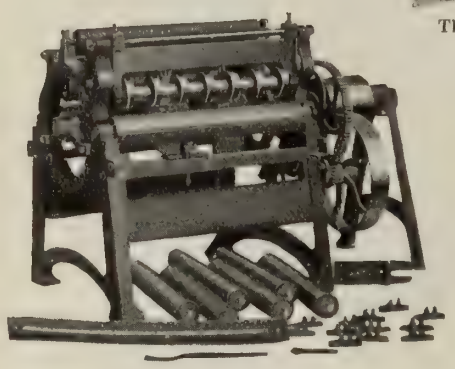
Here are a few machines which appeal to the practical millman.



Steel Carriages

This style built with 36-in., 40-in., 44-in., 48-in., 54-in., 60-in., 72-in., opening from saw line

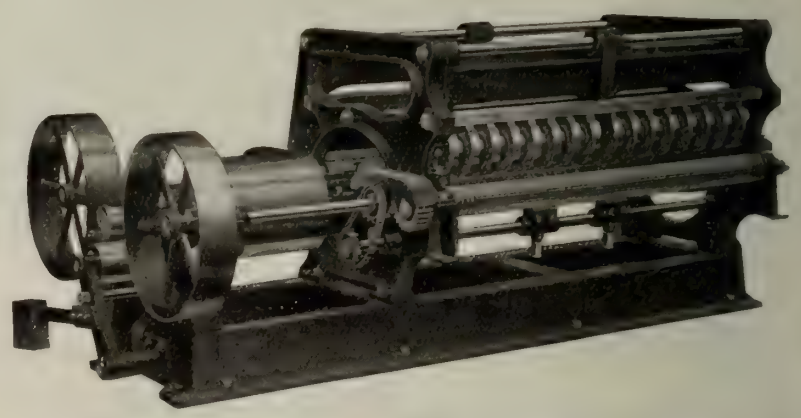
We have others. If you don't see what you want here, send us your inquiry.



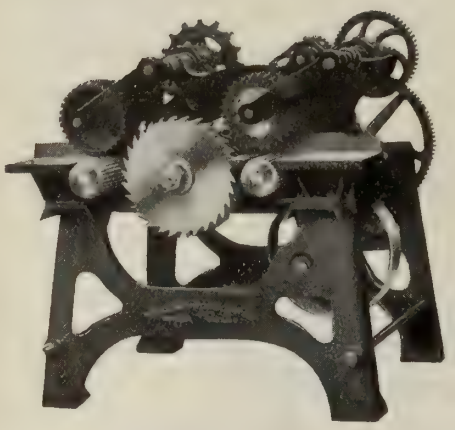
32-in. Edger

EDGERS

suitable for Sawmill of any Capacity



This style built 54-in. 60-in., 66-in., 72-in., 84-in., 96-in. between frames

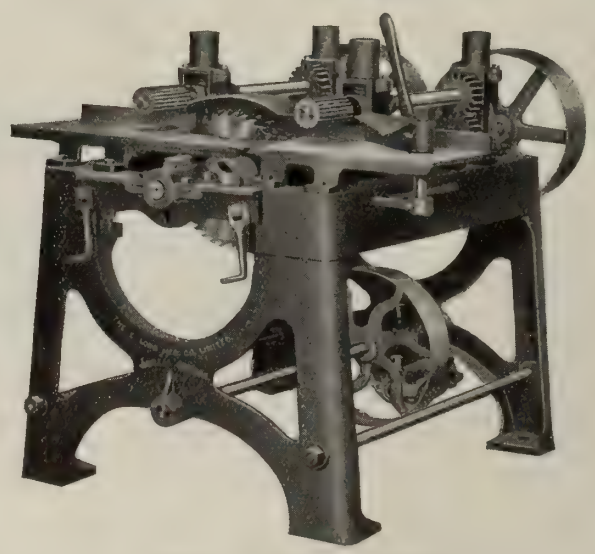


3 Saw Lath Bolter

Complete Mills of any Capacity

No. oo Portable Mill

Our entire attention is devoted to studying the needs of the sawmill trade. Our services are at your disposal.



Heavy Duty Lath Machine

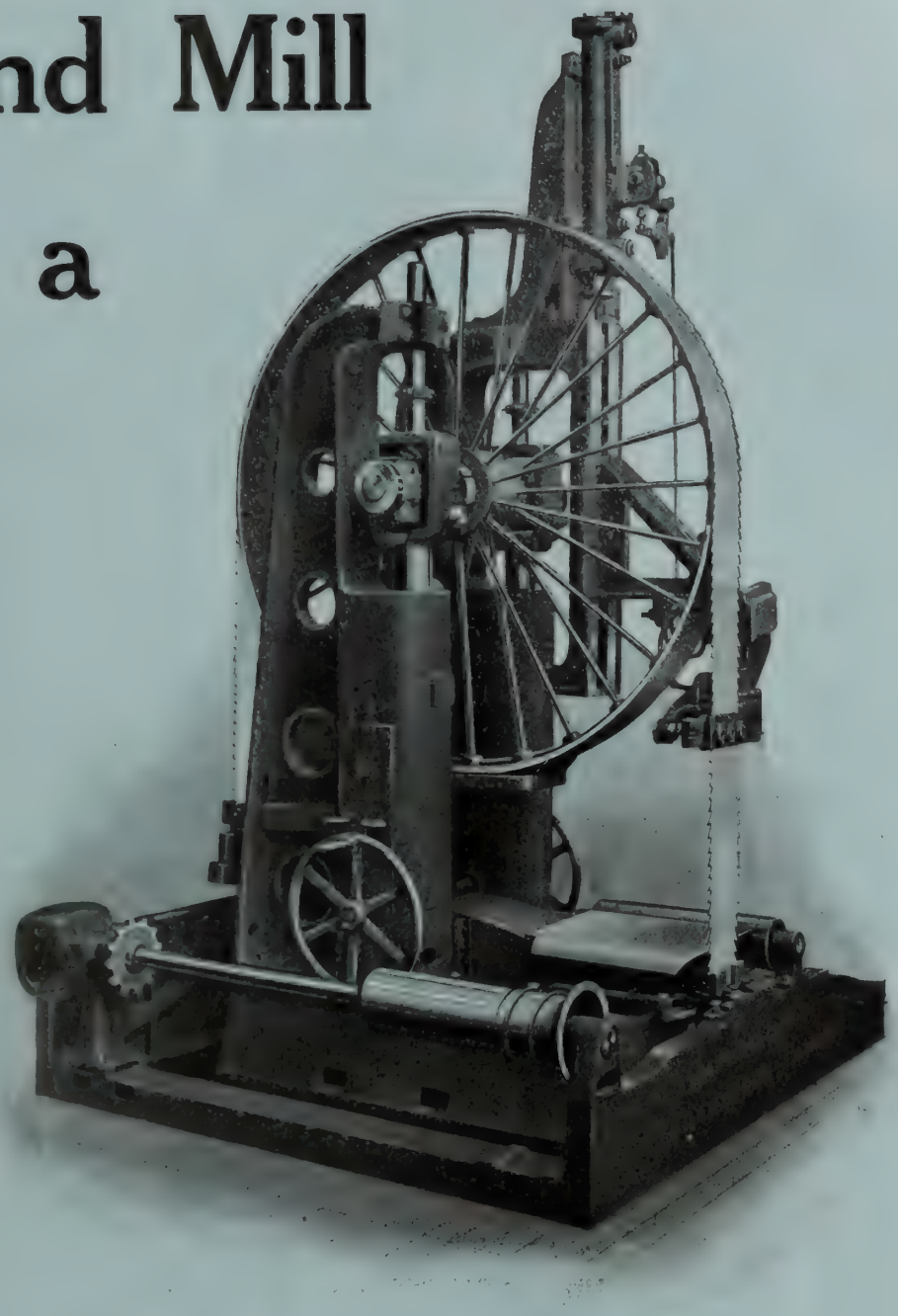
Mill plans and specifications of complete mills furnished.

The E. LONG MANUFACTURING CO., LIMITED, Orillia, Ont.

AGENCIES:

MONTREAL—Williams & Wilson, Ltd.
WINNIPEG—Stuart Machinery Co., Ltd.
EDMONTON and CALGARY—Gorman, Clancey & Grindley, Ltd.
VANCOUVER—Robert Hamilton & Co.

A 7-ft. Band Mill Built With a Purpose.



The Waterous 7-ft. Bandmill was built with a purpose—to handle logs larger than can be economically cut on a 6-ft. Pony Mill, to cut faster than the Pony, and at the same time to be less expensive than the heavy mills which have been used to do this fast cutting on medium-sized logs.

The Waterous 7-ft. Bandmill takes a saw from 14 to 12 gauge up to 12-in. wide. It will split a 36-in. log. It has all the fast cutting features of our 8, 9 and 10 ft. mills, and at the same time represents a saving of several hundred dollars in initial expense, in up-keep of saws and in filing tool equipment.

The saving in initial cost is made possible by the fact that the expensive experimental work and the testing out of the fast cutting features—the spring cushioned tension device, the double cutting guides, the steam raising and lowering attachments, etc.—has already been done on our heavier mills. All you pay for is the cost of construction.

Upper and lower wheels being much closer together than on these larger mills, the saw blade is held stiffer in the cut, with the result that the 7 ft. mill can be crowded to the limit and still turn out perfect lumber. On similar sized stock, it will out cut the 8 ft. mill any day in the week.

This photo and these dimensions tell the whole story——

Frame—7' 8" x 8' 3" over all.
Wheels—7' diameter, 9" face.
Lower Mandrel—4-3/8" diameter, **Bearings**—16" long.
Upper Mandrel—3-3/4" diameter, **Bearings**—14" long.
Saw—Up to 12" wide, from 38' 7" to 40' 6" long; Speed—455-ft.
Distance between wheel centres—8' 2-1/2" to 9' 2-1/2".
Driving Pulley—40" x 17".
Will Split 36" log, 26" cant.
Guides will open 42" apart, can be approached to 12".

A FULL DESCRIPTION AND PRICES ON REQUEST

The Waterous Engine Works Co., Ltd.

Brantford, Canada

Branch: Winnipeg, Man. **Agency: H. B. Gilmour, Vancouver, B. C.**

$5,000,000.00

worth of mixed metals is what we market every year

PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.

Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

We solicit your patronage

HOYT METAL CO., Toronto, Canada

New York, N. Y. **London, England** **St. Louis, Mo.**

BATTS LIMITED

WEST TORONTO

MANUFACTURERS OF

Staved Columns
Veneered Doors
Newel Posts
Sashes - Flooring
Trim
Pine Doors and Frames
Turned Newel Posts and Balusters
Cypress Greenhouse Material

BATTS LIMITED

MANUFACTURERS

WEST TORONTO, ONT.

The J.C. McLaren Belting Co.
Limited

General Mill Supplies **MONTREAL**

The John Inglis Company, Limited

Engineers & Boiler Makers

"Inglis" Boilers are the Best

Write us for quotations

BOILERS

We Make

Return Tubular, Scotch Marine, Fitzgibbon, Scotch Dryback, Locomotive, Water Tube.

14 Strachan Ave. **Toronto, Canada**

Canada Lumberman & Wood Worker

Time is Money

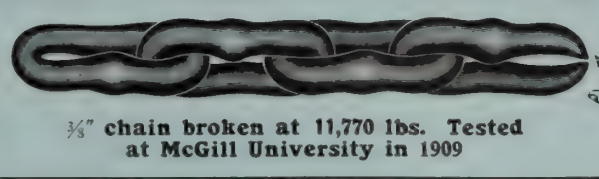
The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.



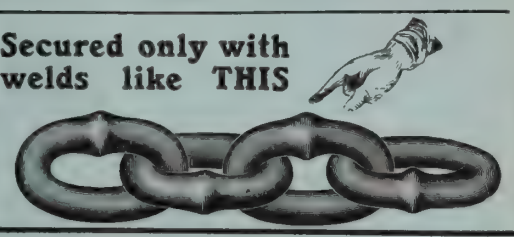
A Test Like This

⅜" chain broken at 11,770 lbs. Tested at McGill University in 1909

25% More Weld - 25% More Strength - 25% More Wear

Tested Steel Chain made at St. Catharines, Ont.
Sold by
McKinnon Chain Co.
BUFFALO, N.Y.

Secured only with welds like THIS



SAW MILL SUPPLIES

There is not a jobber or manufacturer, or any other person employed by either, in an official position who should miss the chance of looking over our new Catalogue on Transmission Supplies.

If you are looking for "Quality and Service" in your mill supplies we know you will be impressed with the lines shown.

Send a post card for it to-day and you will have it by return mail.

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
Steel Pulleys Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults

Montreal Toronto St. John, N.B. Winnipeg Calgary Vancouver

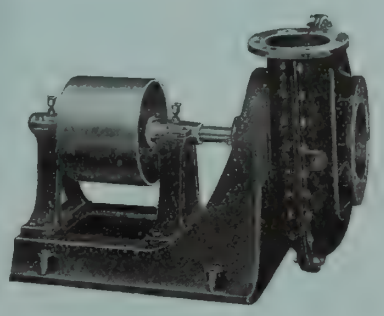
"CAMEL HAIR" "CAMEL" BRAND BELTING

TRADE MARK REG.

The Belt you will eventually use.

We guarantee our "Camel Hair" Belting will outlast, transmit more power, prove easier on bearings, stretch less than any other class of belting running under same conditions, and if our claims are not borne out by results we are ready at all times to make any rebate on the cost of our belt that will make it cost no more than any other style of belting, service considered.

F. Reddaway & Co., Sole Makers Montreal, Toronto



WE MANUFACTURE
Steam and Power Pumps, Condensers, Travelling Cranes, Etc.

The Smart-Turner Machine Co., Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ MONTREAL

Alphabetical Index to Advertisers, page 60

Did you ever really figure what it means to you to increase your cut 2,000 feet per day?

That is, increase it 2,000 feet per day without adding to your cost of sawing.

Or, in other words, what effect will it have on your profits if you can distribute your overhead charges and wages over an output 2,000 feet per day greater than it is now?

If you haven't figured it out, take your pencil and try it now.

You know how much it costs you to run your mill every day—divide that amount by the number of thousand feet per day in your present output—add 2,000 feet to your present output and divide your daily cost by that amount—and the difference between the two results represents the saving per thousand feet in your operating cost.

Then multiply that figure by your total output per season—and we think the result will surprise you, if you have never looked into this before.

This is just one of the ways in which our FOUR INCH STEAM SET WORKS will make money for you, and it will do just this because the users themselves have written us stating that they have increased their cut ***upwards*** of 2,000 feet per day.

May we send you further information about this Steam Set works?

William Hamilton Company, Limited

PETERBOROUGH - ONTARIO

RED and WHITE PINE

VIEW OF MILL PROPERTY AT CACHE BAY, ONT.

QUALITY Our Watchword

The finest pine timber in Northern Ontario and mills equipped in the most modern way enable us to turn out timber that is strictly "up to the minute." Send us your next order for

Norway or White Pine Lumber, Railroad and Structural Timbers, Flooring, Ceiling, Moulding, Siding, Cross-arms, etc.

Daily Capacity of Mill 190,000 feet of lumber, 65,000 pieces of lath, exclusive box boards and pickets.

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

JOHN GILLIES
President

DAVID GILLIES
Vice-President

J. S. GILLIES
Sec.-Treas

Established
1873

GILLIES BROS.
Limited

Mills @ Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

Cedar Shingles and
Railway Ties

RED PINE, SPRUCE, HEMLOCK, CEDAR

Planing Mill, Yard @ Office
MORRISTOWN, N.Y.

CAPACITY 40,000,000

New York City
Guy E. Robinson, 1123 Broadway

The
Georgian Bay Lumber Co.
Limited

Waubaushene, Ontario

Manufacturers of High Grade
Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

White Pine
Red Pine
Spruce
Lumber and Lath

Office, Castle Building 53 Queen St. Ottawa, Can.

F. N. WALDIE, President. R. S. WALDIE, Vice-President. W. E. HARPER, Secretary.

The
Victoria Harbor Lumber Company
Limited

Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont. Head Office, 12-14 Wellington Street East, TORONTO, ONT.

There's Satisfaction in Ordering These Quality Grades of Lumber

If you're depending upon a supply of lumber you must get your orders in before the fall or you will be up against car shortage—a serious question.

Last spring it was bad enough, and even now there is a scarcity of cars—what will it be when the West begins to move this year's wheat crop?

For Fall and Winter requirements place your orders now and make sure of getting August and September shipments.

Right now we are ready to supply your every demand—at lowest market prices, in

HEMLOCK 1 x 4" and up, 1 x 6, 1 x 8, 1 x 10, 2 x 6, 2 x 8, 2 x 10

SPRUCE 1 x 4, 1 x 5, 1 x 6, 1 x 7, 1 x 8, 1 x 9 and 1 x 10

We can also fill orders, in any quantity, of **White Pine**—the finest well-watered stock obtainable. Always ready for shipment. We can dress or resaw.

☞ *Write for prices, etc.* ☜

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 1200 Claremont Ave., MONTCLAIR, N.J. Hope Chambers, OTTAWA, CAN., Head Office

Timber Limits for Sale on Georgian Bay

The undersigned offer for sale in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; Tug Scow and other Lumber Equipment, including boom chains, plows, sleighs, etc.

The Limits, part of which have recently been sold, include: 440 square miles of licensed and deeded Pine, Hemlock, Spruce, Birch and other timber. The licenses from the Ontario Government include all timbers and are not restricted for time. Government dues are as follows: Saw Logs, White Pine, $1.50 per M. ft., B.M. Saw Logs, Hemlock, Tamarac and other woods 75c. per M. ft. The timber is situated in the Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street. The Canadian Pacific, Canadian Northern and Grand Trunk Railways run through the limits, which makes some of the parcels offered for sale particularly desirable for small mill owners.

A circular giving full information, maps, terms and conditions of sale will be furnished upon application to

The Parry Sound Lumber Co., Limited

1315-20 Traders Bank Building, TORONTO, CANADA

THE trend of trade is now towards our **CUTLER** Mills, when customers want anything at **BAY** ports for water or rail delivery, and our **LUMBER** is selling itself by repeat orders from any **COMPANY** to whom we make a shipment. Our stock is **LIMITED** but we still have a goodly quantity to dispose of at prices worth while considering.

DON'T BUY TILL YOU GET OUR PRICES

The Eyer Lumber Co.
34 Victoria Street, Toronto
are Selling Agents

The Rideau Lumber Co., Limited
Trafalgar Building, Ottawa, Ont.

We offer a block of 1 in. Dry White Pine 6/11 ft.

Say 85%, 4/6 in. wide, Balance 7 in. and wider.

Quality---Close enough to good to satisfy most demands.

PRICE MODERATE

'RED DEER'
Hardwood Flooring

is the flooring that is manufactured expressly to supply the demand for the best. It is made by modern machinery, from carefully selected stock, and every precaution is taken throughout our entire system to make it fulfill in every particular the name we have built up for high quality flooring.

We also manufacture Hemlock, Bill Stuff, Spruce and Hardwood Lumber

We specialize in prompt shipments

The Muskoka Wood Mfg. Co., Limited
Huntsville, Ont.

Knowles & O'Neill

WHOLESALE

Lumber, Ties, Pulpwood
Etc.

COMPLETE STOCK OF
Quebec Spruce and Pine Lumber
ALWAYS ON HAND

An exceptionally nice lot of 2″ Pine, well seasoned, for sale, also 1″, 2″, 3″ Spruce, Square and Waney Spruce and Cedar.

Correspondence Solicited. Room 4, Hochelaga Bank Building **Quebec, Que.**

The Golden Lake Lumber Co.
Limited

MANUFACTURERS OF

Lumber, Lath and Shingles

Offer at LOW FIGURE for QUICK sale:

80,000′ 2 x 4 & up 6/16′ No. 1 White Pine Mill Cull
20,000′ 2 x 4 & up 6/16′ No. 2 White Pine Mill Cull
18,000′ 1 x 4 & up 6/16′ Log Run, Dead Culls out White Birch
125,000 pcs. 1½ x ⅜ x 32″ Mill Run Hemlock Lath

All of above, shipment G. T. R. from Golden Lake, Ontario

Head Office: - EGANVILLE, ONT.

JAS. PLAYFAIR D. L. WHITE

PLAYFAIR & WHITE

Manufacturers and Wholesale Dealers

Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

Long Lumber Company
Hamilton, Canada

Our Specialty

Norway and Yellow Pine
BILLS STUFF TO ORDER

Ontario Agents for
A. Cotton's XXX B.C. Shingles
10 Cars in Transit

Cameron & Co, Limited

Manufacturers

LUMBER, LATH, SHINGLES, TIMBER, POLES and POSTS

We have for quick shipment

— DRY —

1" WHITE PINE MILL CULLS
1" " " BOX

Mill and Yard
OPEONGO, ONT.

Head Office
OTTAWA, ONT.

Send your enquiries to our Head Office

The McLennan Lumber Co., Limited

Everything in Lumber
Rough and Dressed
Wholesale and Retail

Want to Purchase

Dry Ash, Birch, Basswood and Rock Elm

ADDRESS
21 Dorchester Street West, MONTREAL

The Hurdman Lumber Co.

OTTAWA, CANADA Limited

EASTERN

Pine, Spruce, Hemlock, Hardwoods, Timber, Lath and Shingles

WESTERN

British Columbia Timber

at Lowest Prices and any Sizes.

Pine, Spruce, Hemlock, Lath, Birch, Maple

Good Stocks. Prompt Shipments.

INQUIRE OF

C. A. SPENCER *Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles*

Eastern Townships Bank Building, MONTREAL, Quebec

Williams Lumber Company

Wholesale Dealers in

White and Red Pine, Spruce and Lath
ROUGH OR DRESSED

For 1 x 4 and up x 6/11 ft dressing shorts.
For 5, 6 and 8/4 x 12/16 dressing strips.
For 5, 6, and 8/4 shipping cull shorts, strips and sidings.

Write us before placing your orders

18 CENTRAL CHAMBERS - OTTAWA, ONT.

Edward Hines Lumber Co.

(BRANCH OFFICE)

Owen Sound, Ont.

All grades of

WHITE PINE

and

Norway Dimension Bill Stuffs

WHITE and RED PINE LATH

WILLIAM H. BROMLEY

Wholesale Lumber

Aux Sable River Forest Reserve Timber Produces Best Lumber in Ontario.

Every lumber dealer and consumer in Western Ontario, Buffalo, Detroit, Central New York and Montreal knows what excellent lumber is produced from Playfair & White's mills at Midland, Ont. I can offer you from that point, all sizes of White Pine and Norway Pine; any quantity of the choicest lumber in the Georgian Bay district. These mills will commence sawing about May 15th.

SPECIAL:—The best block of Basswood in Ontario, estimated 2,000,000 ft. I am prepared to offer, sawn to any size required.

Other stocks of Pine, Hemlock and Spruce at Pembroke, Ottawa and Collingwood.

Quotations promptly given and enquiries solicited

Pembroke - - Ontario

ESTABLISHED 1855

THE McGIBBON LUMBER CO.

OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

JOHN MCKERGOW, President — W. K. GRAFFTEY, Managing-Director

The Montreal Lumber Co. Limited

Wholesale Lumber

Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W

WHOLESALE DEALERS

SPRUCE

13 Foot and 16 Foot

Lath and White Cedar Shingles

CHRISTY-MOIR CO.

149 Broadway, New York City

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Brockville, Ont.
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Wholesale and Retail

Lumber, Lath, Shingles, Bill Stuff

And all kinds of SASH FACTORY and PLANING MILL GOODS.

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Selling Agency and Dealers in all kinds of

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RAILS For Tramways, Sidings, Etc. New and Second Hand

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Hardwood Flooring.

The Celebrated Diamond Brand

End Matched, Bored, Polished and Bundled

Manufactured by

SIEMON BROS., LTD.

For prices write

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That Are Right

Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

No. 3 Pine Doors

THE

Pembroke Lumber Co.

Pembroke, Ontario

A Satisfied Customer

is a powerful factor in building up your business. You will always satisfy your customers with our

Hemlock, Pine and Hardwood

because it is made from the finest timber that grows—and it is **graded right.** We are the only firms to dress and size all our Hemlock lumber. You will save money on your freight—and that helps some.

We specialize in car lots—
Write us your requirements

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

The Harris Tie & Timber Co.,

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Cedar Poles and Posts, Piles and Bridge Timber

Track and Switch Ties

The **North Channel Lumber Co.** Limited

Successors to SAGINAW LUMBER & SALT CO.

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Pine Lumber

Saginaw, Mich. U.S.A.

Mills at Thessalon Ont.

We Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

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HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.

NIAGARA FALLS, N.Y.

The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

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R. LAIDLAW LUMBER CO. LIMITED

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Sarnia
Buffalo

Imperial Timber & Trading Co.
LIMITED
VANCOUVER, B.C.
Branch Office:
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CALGARY, ALTA.

Every Description of
DOUGLAS FIR,
RED CEDAR, SPRUCE,
HEMLOCK, LARCH and
PINE LUMBER and
RED CEDAR SHINGLES

Heavy Construction Timbers a Specialty
Lengths up to 110 ft.
Try a car of our Extra Quality XXX RED CEDAR SHINGLES

Rail and Water Shipments.

CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

WANTED
100 m ft. clear hard Maple axles 4 in. x 5 in.-6ft. and 12 ft. long. Also all thicknesses Common and Better Birch.

For Sale
All grades and thicknesses of Cherry and Mahogany lumber. Also Mahogany, Circassian Walnut and Quartered White Oak veneer all thicknesses. Please let us hear from you.

WARREN ROSS LUMBER CO.
Jamestown, N. Y.

SPECIALTIES
Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie
Pine and Hardwood
Lumber
Lath and Shingles
North Tonawanda, N. Y.

"Well Bought is Half Sold"

STOCK OFFER;-

2 cars 1 x 8 and up No. 3 shop and better W. P.
3 " 6 4 No. 1 and No. 2 shop. "
2 " 6 4 sash cuts "
4 " 6 4 x 10 Select Mill Run "
4 " 2 x 6 Common and Dressing "

The above all 1911 cut F.O.B. Byng Inlet.

We can ship promptly.

Let us have the pleasure of quoting.

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine and Hemlock Lumber

730 Traders Bank Building, Toronto, Ont.

Mills: Byng Inlet, Ont.

We are Buyers of
Hardwood Lumber
Pine and Spruce
Veneers (3 or more ply) Handles (all descriptions)
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Timber Brokers
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Agents for Shippers of
SPRUCE, PINE, HARDWOODS AND OTHER WOOD GOODS.
Please Offer Stocks on hand.
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2 Dale Street, Liverpool, and Seaforth Road, Seaforth Liverpool England

Saddle Tank Locomotives
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All Secondhand
Correspondence solicited
SESSENWEIN BROS.
Montreal

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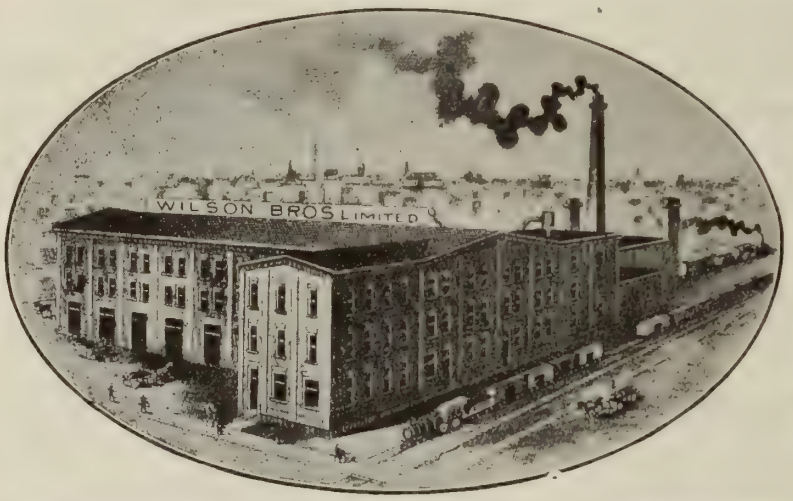
Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office: — Pacific Building, VANCOUVER, B. C.**



This illustration does not show you the largest factory in the world. But it does show you a plant that is unusually well equipped—where only experienced workmen are employed where the highest grade materials are used The home of

Wilson Bros., Limited, Flooring

The fact that we are one of the oldest and largest manufacturers of **Maple Flooring** in this country should give you confidence to specify and buy not only **Wilson Bros., Limited, Maple Flooring,** but also **our Beech, Birch** and **Oak Flooring. Wilson Bros., Limited, Flooring** means a carefully kiln dried and manufactured article. It is straightened, hollow-backed, bored, end matched, steel polished and bundled.

Wilson Brothers, Limited

COLLINGWOOD, ONTARIO

Wm. Milne & Son, Ltd.

Manufacturers:

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.

Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

Spanish Mill

White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel shipment only.

THE

M. BRENNEN & SONS MFG. CO.

HAMILTON, ONT.

MATCHING, DRESSING AND RE-SAWING

done in transit at lowest prices. We are equipped to dress and bore heavy Georgia Pine Timbers.

Lumber Wanted

We want 1″ Crating Spruce and 1″ Elm Crating. Write us telling what you have to offer.

The Glengarry Lumber Co., Limited

Berlin, Ontario

TORONTO WHOLESALERS

Full Stock Dry Pine and Hemlock

BILLS IN PINE AND HEMLOCK

Cut to Order

NEW TELEPHONE ADELAIDE 1783

The Fesserton Timber Co., Limited

15 Toronto St., TORONTO

Mills at FESSERTON, ONT.

JOHN DONOGH & CO.

Wholesale Dealers

Hemlock **Spruce**
White Pine **Red Pine**

Full stock in all grades and sizes

B.C. Cedar Shingles - N.B. Cedar Shingles

—WRITE US—

1205 TRADERS BANK BUILDING, TORONTO

C. A. Larkin Lumber Co.

Limited

We have an exceptionally well assorted stock of Dry White Pine, but wish to call particular attention to our select Mill Run 5/4" x 4/5. 6. 8 & 10" and 6/4 x 10.

If you want silo stock, we have it; 2 x 4, 2 x 6, 2 x 8, & 2 x 10 10/16 Mill Run Norway.

Toronto :: Canada

Do You Want a Salesman?

¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

LEAK & CO., LIMITED

18 Aberdeen Chambers

TORONTO, ONT.

We are in the market for Hemlock, Spruce and Hardwoods, also No. 1, 2 3 Lath.

Send us list of anything you have to offer.

Spears & Lauder

OFFER

One Million feet, Birch, Basswood, Ash, Elm and Maple

now being cut from exceptionally choice logs.

Also during the Summer months 2½ million feet of hemlock.

LET US QUOTE YOU ON YOUR REQUIREMENTS.

Head Office: 501 Kent Bldg., - TORONTO

The

Elgie & Jarvis Lumber Co.

Limited

18 Toronto St., TORONTO, ONT.

We offer for prompt shipment,—

5 to 8 cars, 5/8 Pine or Spruce Crating.
4 to 5 cars, 1½ x 10 & 12 Selected White Pine
4 to 5 cars, 2 x 10, 10/16 No. 1 Spruce
10 to 15 cars, 1 x 10 & 12 No. 1 White Pine Mill Cull
2 cars, 2 x 4 & up, Clear and Clear Face Norway

Close prices for prompt shipment.

C. G. ANDERSON LUMBER CO.

WANTED

Mill Stocks of:—

HARDWOODS
PINE
SPRUCE
HEMLOCK

We are now buying for the 1912 trade. Write us describing Stocks you have, or will have to sell. We pay CASH.

Manning Chambers TORONTO

E. H. Heaps & Co., Ltd.

Lumber, Shingles, Doors, Mouldings, Finish, etc.

Specialties: AAI BRAND HIGH GRADE SHINGLES
LONG FIR TIMBER

Mills at
Vancouver and Ruskin, B. C.

Head Office: 445 Hastings Street West
VANCOUVER, B.C.

For low prices and prompt shipment of
Yellow Pine Timbers
Short Leaf Finish
Chestnut --- Oak --- Ash
Cypress
New Brunswick Shingles
TRY
Fred S. Morse Lumber Co.
Box 1600 SPRINGFIELD, MASS.

J. M. Clifford & Co.

Manufacturers and Dealers in
all Kinds of
Hardwood Lumber

Poplar Basswood Cypress Elm Oak Ash Maple

We have a full stock of the above thoroughly air dried. Complete line and high grades. Prompt shipments on mixed cars.

Best Quality Uniform Grades Low Prices

GET OUR QUOTATIONS BEFORE BUYING

Detroit - - Mich.

Pine Larch

THE HALL MARK OF QUALITY

Selects
Shops
Commons
and
Mouldings

Timbers
Yard Stock
Clears
and
Mouldings

The East Kootenay Lumber Co. Limited

Head Office: JAFFRAY, B.C.
Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

The Fernie Lumber Co., Limited

Manufacturers and Dealers in all kinds of
Fir, Cedar, Spruce and Larch
Rough and Dressed Lumber

Dimensions and Bridge Timber a specialty

Cedar Telegraph and Telephone Poles

We have a Special Stock on hand for immediate Shipment

FERNIE B. C.

Casey-Shaw Lumber Co. Limited

Sudbury, Ontario

Manufacturers of
Lumber and Lath

Planing Mill Work

SAW MILLS
Long Lake, Ont. and Blezard, Ont.

GENERAL OFFICE
Sudbury, Ont.

D. S. PATE LUMBER CO.

MANUFACTURERS OF
Yellow Pine

OUR SPECIALTIES:
Long Leaf Timbers and Implement Stock.
Short Leaf Finish.

Stock Exchange Bldg. - Chicago, Ill.

Modern Methods Do It All

Pine
Hemlock
Spruce
Hard-
woods
Rough
and
Dressed

We
make
a
Specialty
of
Long
Timbers

Fassett Lumber Co.—Loading Logs on Cars for the Mill

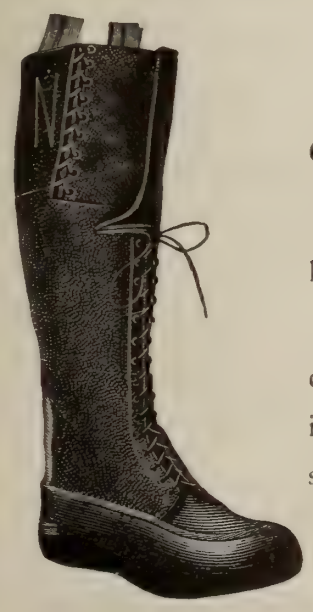
Fassett Lumber Company, Limited

FASSETT, QUEBEC

PENETANG SHOEPACKS

Gendron Penetang Shoepack Mfg. Co.

Sole Manufacturers, Penetanguishene, Ontario



TO THE TRADE

Gentlemen :—

We take this opportunity to advise you that shoepacks must necessarily advance in price in the near future, owing to the great advance in hides and leathers of all kinds.

We would ask you to place your order for fall at once, as we anticipate a larger demand than ever, and although we have made preparations for almost double the increase in our output, those of our customers who neglect placing orders, may be disappointed in shipments, besides running the risk of having to pay the advanced prices.

Yours truly,

GENDRON PENETANG SHOEPACK MFG. CO.

FOR QUICK SHIPMENT

We offer the following stock, subject to prior sale—All Dry Stock:

A few cars left of:

5/4 x 6/8/10 No. 1 and 2, Barn
6/4 x 6/8/10 No. 1 and 2, Barn
200M 1″, 1½″ and 2″ x 12—12/16 Spruce
100M 3 x 10—10/16 Spruce
1″ x 4″, 5″ and 6″ No. 1 and 2, Barn
1½″ x 4″, 6′ 8″ x 10″ No. 2, Barn and Better

From Small Logs

1″, 1¼ and 2 x 4,—10/16′ Spruce, rough or dressed
“ “ 2 x 5, “ “ “
“ “ 2 x 6, “ “ “
“ “ 2 x 7, “ “ “
“ “ 2 x 8, “ “ “

1 , 1¼ and 2 x 10,—10 16′ Spruce, rough or dressed
“ “ 2 x 12, “ “ “

A choice lot of 1″ Ash and winter sawn 1″ Basswood; also Birch Flooring in all grades and thicknesses.

1 x 4/up, 6/11′ Mill Run Hemlock, Mill Culls out.
1 x 4/5″, 12/16′ “ “ “ “ “ “
1 x 4/6″, 12/16′ “ “ “ “ “ “
2 x 4/up, 12/16′ “ “ “ “ “ “

2 x 6, 7, 9 & 11″, 12/16′ Mill Run Hemlock, Mill Culls Out
3 x 8, 10 & 12″, 12/16′ “ “ “ “ “
Also Log Run Hemlock, Dead Culls out.
Scant 2 x 6, 8 and 10″, 6/16′

Send us your inquiries. We can supply you all your wants in Pine.

DRESSED LUMBER OUR SPECIALTY

Write, wire or 'phone us for prices before placing your orders.

W. C. Edwards & Co., Limited

Ottawa, Ont.

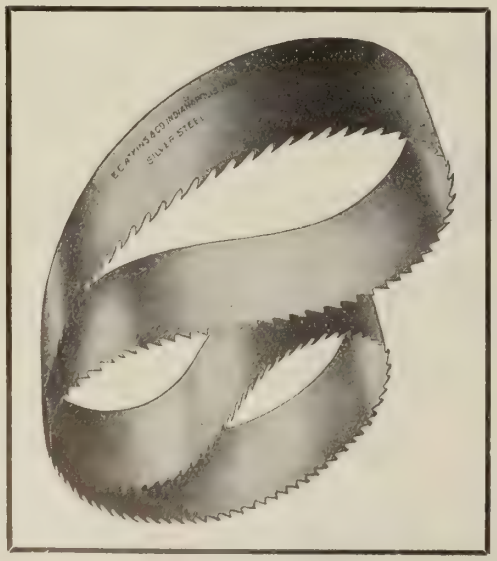
Mills at Ottawa and Rockland **Planing Mills and Factories at Ottawa**

“EVERYTHING IN LUMBER”

Why not make 1912 the most profitable saw year in your history?

ATKINS STERLING BAND SAWS

Made in Canada



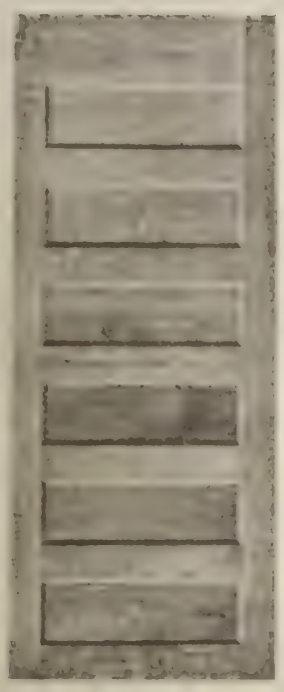
THESE Saws are celebrated on account of their exceedingly tough temper and generally scientific construction. They will stand up to their work longer under the most trying conditions. You will find fewer cracks in ATKINS BAND SAWS than any other and they will hold their teeth and points remarkably. Why not place a trial order and make us prove these statements.

Write to-day

E. C. ATKINS & CO., Makers of STERLING SAWS HAMILTON, ONT.

Vancouver Branch, No. 109 Powell Street, **U. S. Factory, Indianapolis, Ind.**

Invest 1 Cent in a Post Card



and get our Door Proposition

Doors at an Hour's Notice

From the

Biggest Manufacturers of Doors in Canada

At Prices Lower than the Lowest

GET BUSY AND INVESTIGATE

A DOOR A MINUTE IS OUR CAPACITY

Estate James Davidson - Ottawa, Ontario

GARLOCK PACKINGS

Garlock Regular Rings

For all general purposes outside of high pressure work. This Packing is a special grade thoroughly lubricated with the celebrated "Garlock" compound, and is the perfected result of over thirty years experience in manufacturing fibrous Packings.

Garlock Square Duck Packing

Made of good quality Cotton Duck and friction for cold water.

Garlock High Pressure Gaskets

Absolutely heat proof, will not vulcanize or blow out under any steam pressure, being made of long fibre Asbestos Brass Wire Insertion.

Garlock Red Sheet Packing

Made of high grade Rubber compounded in such a way as to give it great strength and reliability.

This Packing has established wide reputation on its own merits.

Garlock Cloth Insertion Sheet

Used on cold and warm water pipes. Is unexcelled in pliability, smoothness of finish and strength of Cloth Insertion.

Garlock Rubber Valves

Specially made to meet specific conditions—absolutely unaffected by oils.

Before placing your next order for supplies get our prices on Leather, Rubber and Canvas Belts, Hose, Brass Valves, Babbitt Metals, Saw Blades, Files, Emery Wheels, etc. Write for catalogue.

THE GARLOCK PACKING CO.

Head Office and Factory: HAMILTON, ONT.

MONTREAL **TORONTO** **WINNIPEG**

MARITIME PROVINCES

Maritime Lumber Co.
Limited

Head Office: Saint John, N. B.

Branch Office: 180 St. James St. Montreal, P. Q

OFFER FOR IMMEDIATE SHIPMENT THE FOLLOWING WHITE PINE

1 x 6	78,876	ft.
1 x 7	46,154	"
1 x 8	57,256	"
1 x 9	33,928	"
1 x 10	20,955	"
1 x 11	18,162	"
1 x 12	21,342	"
Random,	119,637	"

The above Pine is last year's cut, 1st, 2nd and 3rd Quality

Donald Fraser & Sons, Limited

CABANO, QUEBEC

MANUFACTURERS OF

Long Lumber

Rough and Finished

Shingles, Clapboard, etc.

To Reach More Lumber Buyers

Canadian lumber manufacturers and wholesalers should advertise regularly and prominently in the

Canada Lumberman & Wood Worker

This paper reaches all the principal buyers of Canadian lumber at home and in Great Britain, United States, Europe, South America.

Rates on application to the head office.

220 King Street West

TORONTO - ONTARIO

High Grade

N. B. Cedar Shingles

Spruce and Pine Lumber Lath

Rossed Pulpwood

Dalhousie Lumber Co., Limited

Dalhousie, New Brunswick

Agents for Ontario . Laidlaw Lumber Co., Limited

Toronto, Ontario

Selling Mill Stock

If you desire to get beyond the retail dealer and reach the builder and the architect it will pay you to advertise in the

Contract Record

and Engineering Review

the only weekly paper in Canada for builders, architects, etc.

Send for sample copies and rates to the publishers

Hugh C. MacLean, Limited

Toronto, Ontario

WHITE and RED PINE and SPRUCE

Carefully manufactured from choice Timber in a modernly equipped mill.

If you want quality in the above grades, stock that you can rely on, and quick shipments, write us your requirements.

JOHN LUMSDEN

LUMSDEN MILLS - - QUEBEC

J. F. EBY
President

HUGH BLAIN
Vice-President

CAMP SUPPLIES

If you are looking for QUALITY in your Camp Supplies, you should specify:

"ANCHOR" brand—

BAKING POWDER
JELLY POWDERS
EXTRACTS, SPICES
COFFEE — TEA
(In sealed air tight packages)
Sweetened MILK Unsweetened
CANNED—
SALMON, FRUITS
and VEGETABLES

The Quality Is Guaranteed The Best It Is Possible To Produce

WE CARRY A FULL RANGE OF CAMP SUPPLIES

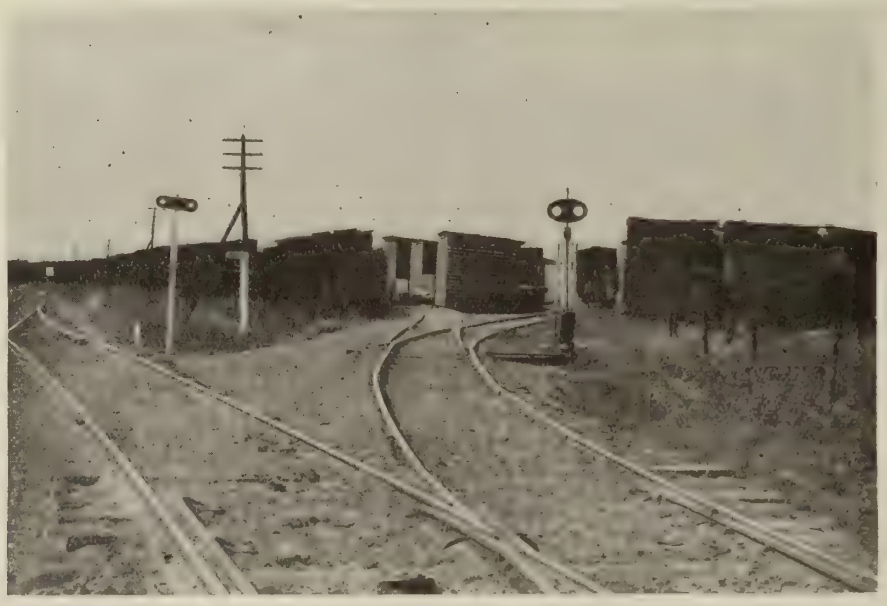
Wholesale Grocers **EBY-BLAIN, LIMITED** Importers and Manufacturers

TORONTO

Place Your Dimension Orders Early

White and Red Pine, Spruce, etc., Bills, any Size, any Length

ROUGH OR DRESSED



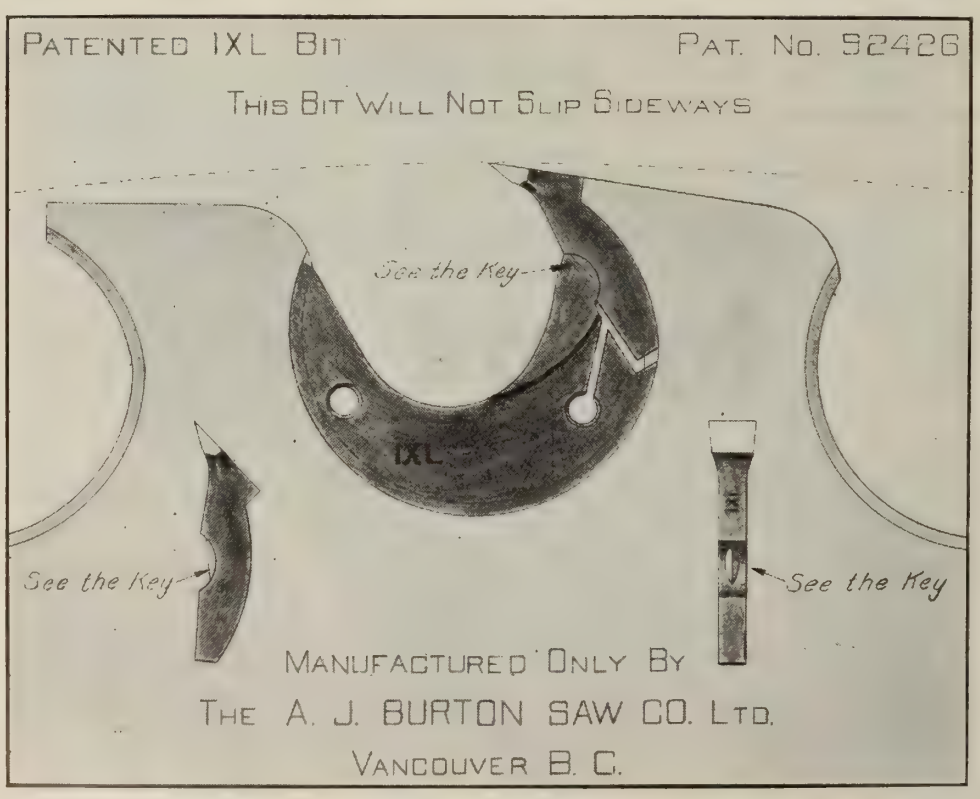
East Entrance, No. 2 Yard

We still have a few cars each dry 1 x 12, 1½ x 12 and 2 x 12 x 12/16 for sale.

Fast Feed Planing Mill in Connection

The Colonial Lumber Co.

Pembroke, Ont.



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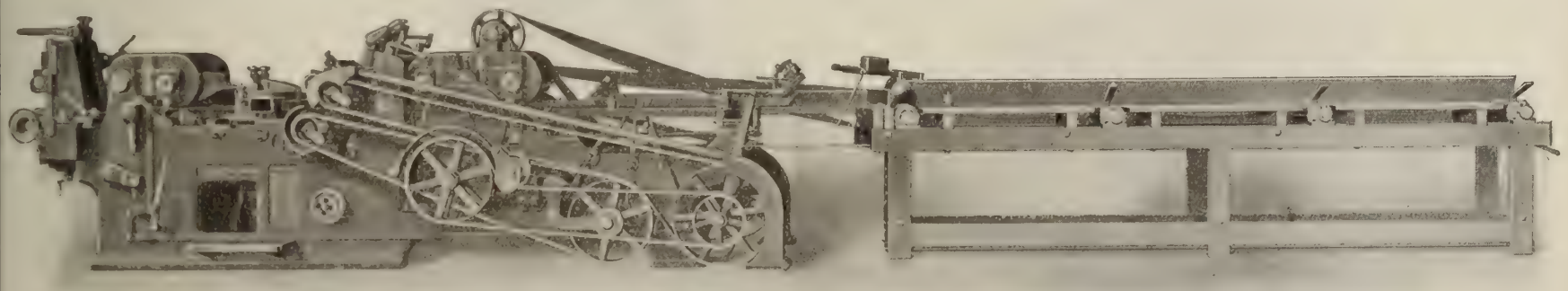

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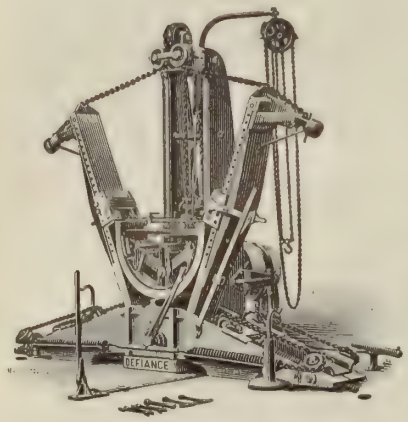

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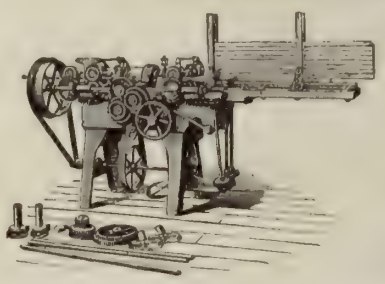
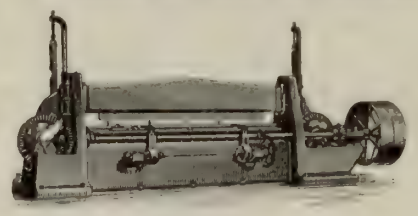


Chaplin Handle Lathe



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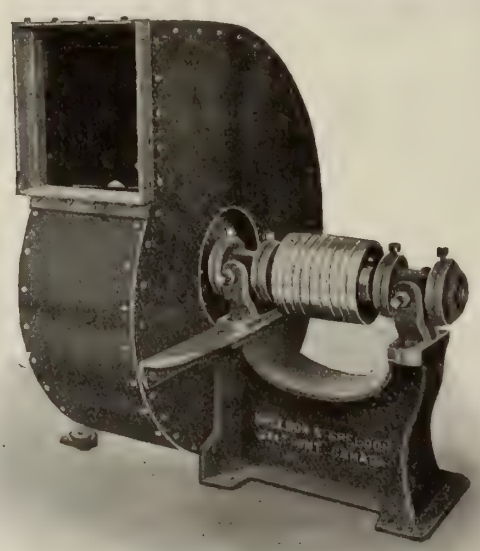

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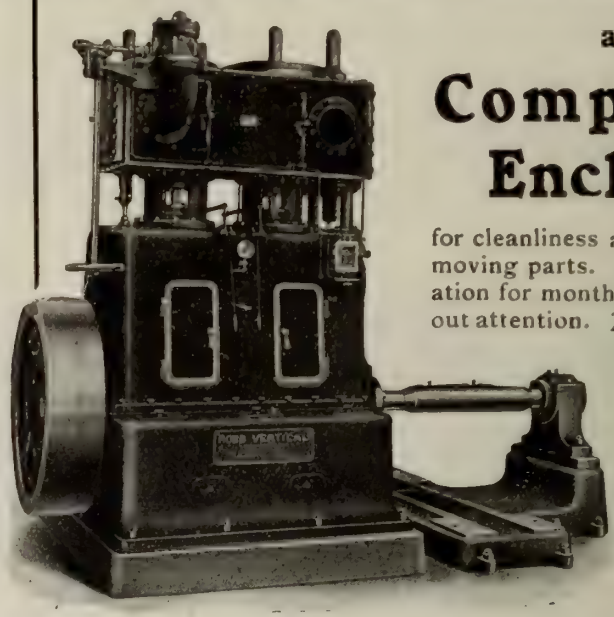

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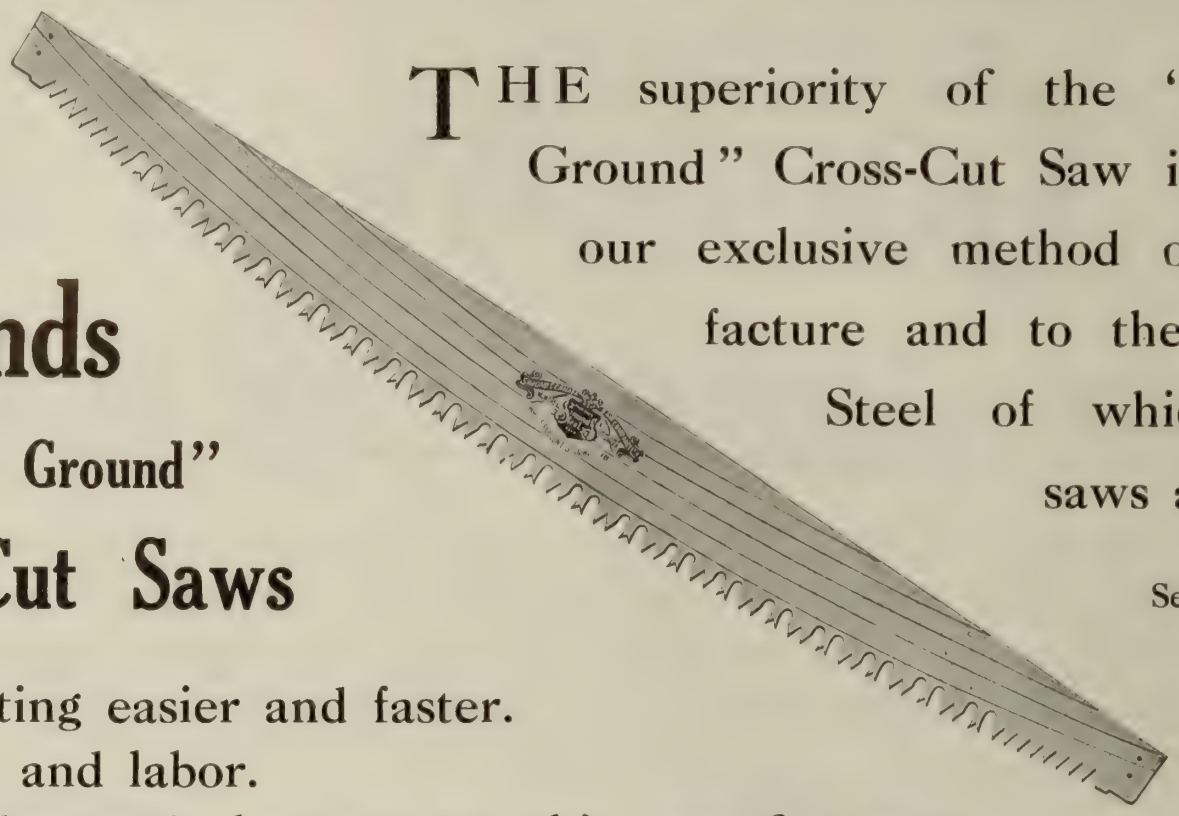

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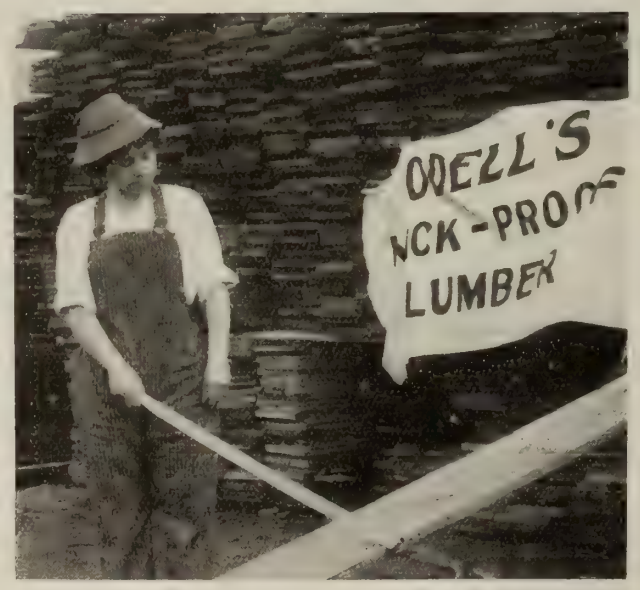

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A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 32 Toronto, August 15, 1912 No. 16

Will Regulate St. John River

A system of storage dams and other devices for the regulation of the flow of the St. John River is the principal recommendation by a Board of Consulting Engineers to the International Commission appointed some months ago to investigate the question and to devise a scheme to remedy the conditions which now obtain. The works in question will cost about a million and three-quarters, and would be borne jointly by Canada and the United States. The report recommending them has been completed by the consulting engineers.

The commission consists of M. G. Teed, K.C., and John Keefe, of St. John, representing the Canadian side, and Hon. G. A. Murchie, of Calais, and Hon. P. C. Keegan, of Vanburen, Maine, representing the United States. Mr. S. Jefferson Chapleau, of Ottawa, is the consulting engineer for the Canadian and Mr. P. S. Ferguson, of New York, for the American section. The body was created to enquire into the flow of the St. John River in order that uniformity at different seasons might be established. Beginning at a short distance above Grand Falls, N.B., the river becomes international, and is the boundary between the United States and Canada.

There have been recurrent difficulties in regard to the log drives, and at one time there were open hostilities, culminating in what is known as the Allejash war, when a dam was blown up by Canadian lumber interests and men employed by the Americans crossed the stream armed and threatened to shoot up those of the rival concern. There was little bloodshed, however. It is claimed that the Maine lumbermen are in the habit of holding back all the drives until their own logs are sorted, by which time the water is low and logs of Canadians are left high and dry on the bank. It was a dispute of this kind that precipitated the trouble some years ago.

On behalf of the commission a large staff of engineers under Messrs. Chapleau and Ferguson have carefully investigated the whole question, and prepared plans for an elaborate system of storage dams to regulate the flow so as to secure uniformity at all seasons. There is little doubt that these recommendations will be carried out by the two countries.

Another subject being looked into by the commission, and involving points of international law, is the construction of the Telos Canal in Maine in 1840. It is claimed that the effect of this work is to divert to the Penobscot River of Maine the flow of a chain of lakes in an area of 270 square miles which, previous to the canal being built, formed the watershed of the St. John River.

The enquiry into this aspect of the case has not yet been concluded, but it opens up a decidedly interesting international question. The costly remedial works now suggested will ensure a sufficient flow of this river at all seasons, but much of this outlay would have been obviated had the course of the watershed not been diverted.

Astonished at Our Forest Fires

Ever since the first white men settled on the American continent, and probably for many generations previous, forest fires have been taking their toll of the timber wealth of this country and we have heard so much about them that the average citizen has become in a manner callous to the appalling losses involved. Those who are in charge of the forest wealth of the country are fortunately awake to the situation and are doing much to prevent the losses which are so frequent, but they depend upon the co-operation of the public to an extent which the public themselves are far from realizing. The warnings which emanate from the forestry officials of the country are too often looked upon as routine reports published more for the sake of justifying their employment than for the sake of arousing the public to a sense of their own responsibility. When some foreigner however, comes to Canada and sees the actual condition of affairs which he has formerly known of only from statistics, he is generally so surprised that any opinions which he expresses are peculiarly forcible and bring home to ordinary readers a real sense of the great losses which have occurred, and are likely to occur in the future unless a general awakening takes place and the public backs up those who have devoted their time and their brains to this all-important problem.

Such a warning has lately been expressed by a Swedish expert who has come to Canada as a representative of the Government of Sweden to report upon Canada as a land for Swedes to emigrate to, and also to study the general forestry and economic conditions of Canada. Professor Gunnar Anderson of the Technical University at Stockholm, and Mr. A. Holmgren, of the Forestry staff of Sweden, have recently been in conference with the Forestry staff of the Province of British Columbia and have had the advantage of visiting many of the important timber growing districts in Canada. Mr. Anderson's opinions on the subject of forest protection in Canada are therefore the result of investigations which thoroughly qualify him to speak.

"The people of British Columbia," he says, must awake to the necessity of fully protecting their forest wealth. This is one of the most vital problems your province has to meet. I am glad to see that the government is taking this matter up and is organizing a forest protection service, because the future of British Columbia, to a large extent, is in her forests. We have come to Canada for two purposes. They are to form a general opinion of the natural resources and economic life of Canada, and to obtain some idea of what the position of the Dominion will be in the future lumber production of the world.

"With regard to the first matter we are interested in a personal sense. While we do not desire to see our people in Sweden leave their country, if they are determined to do so, we wish to ascertain which is the best country in the new world in which they may make their homes.

"We have visited the Eastern States and the prairies. We were at Wetaskiwin, 'New Sweden' about three hundred miles south of Edmonton, where we found the Swedish community had done very

well. We have come to the conclusion that our people could not do better than to homestead on your land.

"Now with regard to forestry. In Eastern Canada we found large areas of timber land that had been devastated by fire. We had read of the Canadian forest fires and had seen statistical tables showing the value of the timber destroyed, but we had no adequate conception of the enormity of the loss until we had seen what actually had occurred. Why, we saw in the East, fire-swept areas as large as the whole of Sweden. Not a single tree had reached its natural age. Some areas had been burned off two and three times in the last thirty years.

"You have a marvellous wealth of timber here and a climate which is unsurpassed in the temperate zone for the production of immense trees. Some of those we saw yesterday and to-day are certainly among the largest timber in the world and the people of this province ought to congratulate themselves on being so blessed. At the same time there is a great duty upon them to safeguard this source of material wealth so that it may last for all future generations. This, we understand, your government is doing, and in doing that they should have the very heartiest support and co-operation of the people. We have been struck by the vast amount of timber which has been lost by fire in other parts of this country, and the steps which have been adopted here by the forestry department in the way of forest patrols are such as will protect the timber from destruction in that way. The system of creating a fund by contributions from the owners of timber and the government which I believe has been adopted in this province is the proper one, and as I have told your chief forester, who is a most excellent man for the very important position he holds, is sure to work out with satisfaction. Then there is the matter of reafforestation to be attended to. This is a matter which will take time to work out and will require a great amount of experimenting, but I have no doubt that with the fine staff of forest officials the government has gathered this will be most efficiently done."

Speaking of the system of fire protection which is in vogue in Sweden, Dr. Holmgren said that the country was divided into districts under wardens so far as the crown timber areas were concerned, and watch towers were placed on the hills with telephonic communication with the wardens. The moment a fire was discovered the alarm was raised and the warden gathered a fire-fighting force from among the people around. By law every household was compelled to furnish one of its number for this purpose but there was no difficulty found in securing aid, so thoroughly had the people been educated to the duty of protecting the forests. The private owners of timber areas willingly co-operated with the government in the work.

"You have a splendid system of forest service here in every way," said Prof. Anderson. "With the extension and development which will come as time goes on I am convinced that your great timber areas will yield your province incalculable wealth. You have inaugurated a good work here and every forester will wish you good speed. You have the finest forestry system here that we have seen —outside of Sweden."

It remains for the people of British Columbia to make their forestry system equal to that of Sweden and for the people of the other provinces to emulate British Columbia.

British Columbia's Forest Surveys Being Rapidly Pushed

H. R. MacMillan who was recently appointed to the position of Chief Forester for British Columbia recently visited the Sooke, Goldstream and Cowichan district on Vancouver Island, in order to see how the work of forest protection was progressing there. He was accompanied by Mr. H. K. Robinson, the chief of the surveys branch of the forestry department, Divisional Fire Warden Markland and District Fire Warden Bittancourt. Mr. MacMillan was greatly impressed with the dangerous manner in which the woods along the famous Malahat Drive are being slashed and the brush left. This is being done in the course of running a power transmission line across the main line of the Jordan river distribution to the new cement works at Malahat by the Vancouver Island Power Company. This not only detracts from the beauty of the road but should fire at any time sweep through that timber it would destroy the scenic beauty of the drive for all time so far as anyone now alive is concerned.

Mr. MacMillan was most favorably impressed however, with the organized efforts made to protect the timber of Vancouver Island from fire. The forest branch now has fire parties in the field under the direction of Mr. H. K. Robinson, making reconnaisance surveys and five more will shortly be put at work. It is hoped that within three years the department will be in possession of fairly complete information as to the amount of timber in the province, its kind, quality, stand and accessibility, and as this comes in from time to time the officers of the branch will be better able to plan for the future. The minister of lands has given particular instructions that the surveyors are to report immediately all areas of land now under timber found to be suitable for agricultural or grazizng purposes, and steps will be taken to make these areas available to the settler.

When the survey is complete British Columbia will possess a more thorough knowledge of its wealth than any other Canadian province.

The Baneful Effect of the Scalper

The Canada Lumberman does not like, when times are a little out of joint to worry the trade with articles about the causes for the poor prices which are secured or the difficulty experienced in giving away lumber. To-day however, everything is looking rosy in the lumber business so far as the demand and the prices are concerned and it is excusable to call attention once more to something which comes close home to the lumber trade, which, in fact, makes itself felt at regular periods in every business that has to do with the marketing of lumber. Nearly everyone who has any acquaintance with the lumber business will by this time have guessed what we are driving at and most of the guesses will be right The "scalper" is a man whom we have in mind just now. The scalper first comes into notice when he offers lumber at prices lower than those which regular manufacturers and dealers are receiving. Everyone who knows anything about the business probably knows, when a "scalper" approaches him, that he runs little or no chance of delivering the goods, but every now and then a new sucker is found who believes himself an exception to the general rule. He gives the "scalper" an order and then pats himself on the back for a shrewd business man. In reality he is a fool and soon he will join the others who have found out from bitter experience that they also once were fools.

There seems to be no way of eliminating the "scalper" but it is quite possible to reduce his influence if the lumber press and the lumber associations and all those who have been bitten will persistently oppose the "scalper" on every possible occasion. We have so often expressed our own views on this subject that we don't like to do it again at the present juncture. Just to give our readers an idea of what one of our contemporaries thinks of the subject however, we publish the following discussion of the question from a recent issue of the American Lumberman:

"After receiving an order they (the scalpers) go around among the mills or wholesale offices and try to secure the lumber at prices that will enable them to snatch a scalp in the place of a legitimate profit. This manner of operating has always been a bane to the

lumber trade, because it has the certain effect of depressing prices below a reasonable profit, rendering them unstable and destroying the confidence of buyers in the market.

"This Bedouin way of trying to seize reprisals from defenseless victims is usually the most rife in periods when the established trade is trying to overcome demoralization of prices and lift itself out of a period of depression, perhaps long continued. Hailing some signs of improvement in conditions as an opportunity to effect a betterment of trade, manufacturers and dealers try to restore prices to a uniform basis, and could do so if it were not for the activity of the short-selling scalper, whose only way to get business seems to be by underselling the market. His hope is to sell the lumber at enticing prices, and then find somebody who will fill the order. Generally this somebody can be rounded up; for there are always operators who are hard pressed for money, not well informed as to market conditions and prone to do almost anything to brace up their bank accounts, even at a loss of profit on their lumber. Such a commission man as here indicated represents a class that prevents the restoration of prices to a basis of reasonable profit at times when conditions of demand and supply are ripe for that result.

"The disposition to undersell when the market is in shape for the advance of prices is not confined to the commission trade. When there has been depression, and the time and circumstances have come that give opportunity to advance prices, there are mill operators who watch for an opportunity to undersell the mill concerns that are trying to put prices on a better basis and hold them there. In the North Pacific Coast country buyers of lumber are well aware that advances of prices for fir and shingles have recently been made, because such advances were needed to save further loss and to overcome the demoralization that had pertained to the North Coast lumber industry since the panic of 1907. The advances made were moderate ones, and left prices considerably below those prevailing two years ago. A large number of the manufacturers were able to get the advanced prices for their stock at lower figures. It can be seen that the mill concerns that were earnestly at work trying to restore the market to a healthy basis were being knifed.

Important Developments in New Brunswick

The reports which have recently come from Fredericton, N.B., that the two power companies at Grand Falls, New Brunswick, will amalgamate and that extensive pulp and paper mills are to be erected at Grand Falls which will utilize the power developed there are of great interest to the people of New Brunswick and mean a most important development in the industrial activities of the Province. The plans of the new company are pretty well known as they are practically the same as those which were mapped out by Sir William Van Horne some four or five years ago, for the realization of which the people of New Brunswick have been anxiously hoping.

At Grand Falls large pulp and paper mills are to be erected and the great water power there is to be harnessed and eventually be utilized for other purposes as well as the running of the plant which the company will erect at Grand Falls. The investment, which has been arranged for and which will be made, will amount to at least $6,000,000, although it may reach $8,000,000, the figures given by Sir William Van Horne in an interview here when his plans were first outlined.

The financing of such a large proposition is a big undertaking, but it is understood that the capital has been supplied in England and that a market has been arranged there for the product of the company's paper plant. The establishment of such a large plant at Grand Falls means the employment of a great number of men there. Altogether the definite decision to go ahead with the proposal is of the utmost importance to the whole province, and probably means a rapid growth in the population of Grand Falls.

Another important recent development is the re-opening of the saw mills at Marysville, N.B., by the Partington Pulp and Paper Company which recently purchased the Gibson mills and limits. The mills had been closed down all season. They will only cut about five million feet this year. It is expected that the company will erect a pulp mill at Marysville.

These two developments on the St. John River are matters upon which the people of New Brunswick are to be congratulated as it is believed that they indicate a general improvement in business conditions.

Successful Forestry Meeting Assured at Victoria, B. C.

The forestry meeting which is to be held at Victoria, B.C., Sept. 4, 5 and 6, is the fourteenth annual convention of the Canadian Forestry Association, which comes to British Columbia upon the invitation of the Government of that province. This is the first time tince 1906 that the Canadian Forestry Association has met further west than Regina, its gatherings having been held in the interval in the big lumber centres such as Toronto, Ottawa, Montreal, Quebec and Fredericton.

One of the chief subjects of discussion will be furnished by the new forest law which has just been enacted by the Government of British Columbia, and the organization and scope of the B. C. Forest Service now being established. The relation of this law and this service to the lumbermen in the mountains and on the coast, and to the railways will be set forth, and some points, no doubt, keenly debated. The Government is taking a keen interest in this convention owing to the immense importance of the forests of British Columbia and the large revenue which they bring in to the province. Sir Richard McBride, the Premier, and Hon. W. R. Ross, the Minister of Lands, will address the convention upon the law as it affects their departments. The lumbermen and the railways will be well represented by those qualified to speak from their respective positions. Quite a large number of prominent men in forest administration and lumbering are expected to attend from Eastern Canada, as well as from points nearer the Pacific Coast, and a number are also expected from the United States. Among those who have already intimated their intention of attending are Hon. Jules Allard, Minister of Lands and Forests, Quebec; Dr. B. E. Fernow, Dean of the Forest School of Toronto University; Mr. R. H. Campbell, Dominion Director of Forestry; G. C. Piche, Chief Forester of Quebec, etc.

It is proposed to begin with a reception on the evening of Sept. 4, followed by regular sessions in the mornings and afternoons of Sept. 5 and 6, concluding with a banquet on the evening of Sept. 6. Delegates from the United States will be cordially welcomed and given full opportunity to participate in the discussions. The railways have granted single fare round trip rates.

In their official notice calling the convention the Association say:

"In 1910 the value of the forest products of Canada was $166,000,000 or over $22 for every inhabitant. Every one can see how this touches him. If we go on as in the past, slashing and burning our forests, this immense industry will be lost in a few years, and with it will go all its subsidiary industries. Great as this loss will be it will be exceeded by the loss of our agriculture, waterpowers and navigation.

"On the other hand the amount of land in Canada suited only to trees is such that if the forests are maintained in these areas and properly worked the resulting product will not only keep every existing wood-working industry going for ever, but these industries can be greatly increased without using more than the annual growth. At the same time our agriculture, navigation and waterpowers will be enabled to reach their highest development."

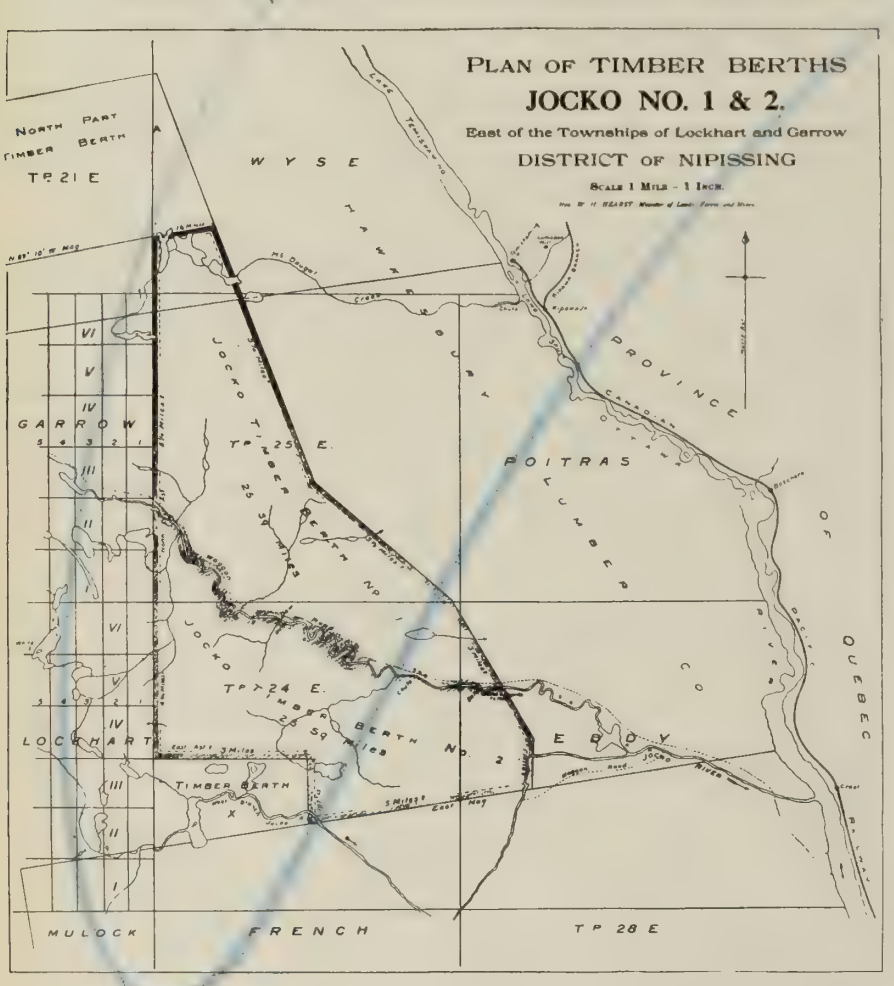
Ontario Limits to be Sold by Tender

Offers to be Submitted by October 1st—White Pine, Red Pine and Spruce to be disposed of Subject to Manufacturing Conditions

The Ontario Government are calling for tenders for the right to cut white and red pine and spruce on two berths on the upper waters of the Jocko River. These berths are situated east of the townships of Garrow and Lockhart in the district of Nipissing and are known as "Jocko No. 1" and "Jocko No. 2." Each contains about 25 square miles.

Tenderers are required to state the amount per thousand feet board measure which they are prepared to pay for white and red pine and spruce respectively, in addition to the Crown dues of $2 per thousand feet board measure for white and red pine and $1 for spruce. In the event of square timber being made, dues are to be paid at the rate of fifty dollars per thousand feet cubic in addition to the bonus. The license to cut this timber will extend to the 30th day of April, 1918.

The timber will be sold subject to the condition that it is to be manufactured in the Dominion of Canada. An annual ground rent of $5 per square mile will be charged. Berths are to be tendered for separately, and with each tender a marked cheque for $25,000 will have to be enclosed. The timber is to be cut in an economical manner



and in accordance with the directions of the Department of Lands, Forests and Mines. The timber cut by the purchaser will be measured on the ground by cullers appointed by the Minister of Lands, Forests and Mines, and half the wages and expenses of such cullers will have to be paid by the licensee. The rights of holders of mining claims or locations, or lands purchased for other purposes, if any, will be reserved. The sale will be subject to the Crown timber regulations.

These berths are in the neighborhood of the Hawkesbury Lumber Company's timber berths and are convenient to Ottawa Valley operators.

In view of the above sale, it is of interest to note some of the prices paid for similar limits during the last few years. One sale of virgin timber on an island in the Georgian Bay in September, 1907, brought $12.55 per 1,000 ft. board measure for pine. The dues on this timber were $2 per 1,000 ft. board measure.

A quantity of fire-damaged timber sold in September, 1909, at $11.27 per 1,000 ft. for pine and $8.55 for spruce. The dues on this were $2 per M. ft. These berths were on the Mississaga forest reserve.

Other recent sales have been made at $10.55 for pine and $8.55 for spruce with dues of $2 per M. ft.

Sales of fire-damaged timber have also taken place of late at $6 and $9, depending on the location, quality and quantity of the timber stand.

In December, 1905, fire-damaged timber in Dana Township was sold at $8.25 per M. with dues of $1.25 per M. ft.

Berth No. 22, Algoma, was sold in March, 1907, at $10.52 per M. ft. and dues of $2.

Timber Resources of the Hudson Bay Region

Interesting observations with regard to the timber of the Hudson Bay region (the southern part of the old district of Keewatin), are found in the 1911 report of the Director of Forestry, published as part of the Annual Report of the Department of the Interior for 1911. Mr. J. T. G. White, an experienced timber cruiser and fire ranger (who has since been drowned), reports on the conditions of the forest around Split Lake, on an area of about 2400 square miles. This whole territory was originally covered with forest. The islands in Split Lake still bear spruce, tamarack and jack pine large enough for railway ties, poles and lumber. All the rest of the country has been burned over at lease once within the past forty or fifty years, and the timber, which dates from the last fire, rarely exceeds three or four inches in diameter. The shores of Split Lake have been burned over, on an average once every season. Fortunately, in this district the soil is usually deep, and can always support another crop of trees. The presence of merchantable forest in protected situations proves that the young forest now started will become sufficiently valuable to support sawmill and pulp industries and supply a large population if it can be protected from fire. Very little of the land traversed by Mr. Whyte is suitable for agriculture. Mr. J. T. Blackford, fire ranger at Oxford House, reports similar conditions on about 5400 square miles of territory in that region.

Ontario Crown Lands Annual Report

Revenue from Woods and Forests Increased by $315,393 —Lands, Forests and Mines Receipts over $2,700,000

The report of the Minister of Lands, Forests and Mines of the Province of Ontario for the year ending October 31st, 1911, which has just been published, contains much useful and interesting information for lumbermen.

The total collections of the department from all sources for the year amounted to $2,710,242.68. The total expenditure for the same period amounted to $672,655.48.

Referring to the timber resources of the province the report says: "The terrible forest fires that occurred in the Porcupine and Cochrane districts during the past year are still fresh in the public mind. The timber damaged consisted of Jack pine and spruce, there being no red or white pine of any moment in that locality.

"The revenue accrual under the head of woods and forests for the year ending the 31st of October last was $2,151,258.14, which is $315,393.82 in excess of the revenue accrual for the previous year.

"The increased accrual is caused by the coming in force this year of the regulation increasing the timber dues on old limits. The dues on sawlogs have been advanced by 50c. per thousand feet board measure, and on square timber by $25 per thousand feet cubic. The ground rent was increased last year from $3 to $5, and the transfer bonus was also increased from $3 to $5 per mile.

"The revenue accrual under the head of woods and forests for the $123,543.84 less than that of the previous year. The decrase in revenue was caused by lumbermen failing to pay in before the 31st of October, the end of our fiscal year, a number of them finding it impossible to pay at that date.

"The cut of pine sawlogs and boom timber was 29,000,000 feet board measure less than that of last year. There was also a small decrease in the quantity of other kinds of timber cut. The cut of pulpwood was 9,000 cords less than that of 1910. There was an increase of 467,171 railway ties over the previous year.

"There were no timber sales of any consequence held during the year. A few areas which had been injured by fire were offered for sale by tender so as to obtain the value of the timber for the public.

"The revenue of $1,711,436.87 above mentioned, was made up as follows: bonus, $426,718.71; timber dues, $1,173,283.85; ground rent, $104,325.96; transfer fees, $7,110.35; total, $1,711,438.87.

Statement of Timber and Amounts accrued from Timber Dues, Ground Rent and Bonus during the year ending 31st October, 1911.

QUANTITY AND DESCRIPTION OF TIMBER.

Agencies.	Area covered by timber license.	Saw logs.				Boom and Dimension.				Square Timber.		Piling.	
		Pine.		Other.		Pine.		Other.		Pine.		Spruce.	
	Square miles.	Pieces.	Feet B.M.	Pieces.	Feet B.M.	Pieces.	Feet B.M.	Pieces.	Feet B.M.	Pieces.	Cubic feet.	Pieces.	Feet B. M.
Western Timber District	12,953¼	10,827,755	464,040,275	1,435,747	54,295,082	221,701	23,673,569	59,507	7,925,920	12,927	552,876	2,750	248,053
Belleville Timber District	1,016½	361,941	10,305,935	248,085	8,826,378	3,095	427,866	3,726	723,646	.....	.....	.....	.....
Ottawa Timber District	5,380	1,535,284	76,082,079	530,070	19,547,926	31,059	3,067,553	18,405	1,897,056	75	2,693	.....	.....
	19,349¾	12,724,980	550,428,289	2,213,902	82,669,386	255,855	27,168,988	81,638	10,546,622	13,002	555,569	2,750	248,053

General Statement of Timber.—Concluded.

Agencies.	Cordwood.		Tan Bark.	Railway ties.	Posts.	Poles.	Stave Bolts.	Shingle Blocks.	Pulpwood.	Amounts accrued.							
	Hard.	Soft.								Transfer bonus.	Interest.	Trespass.	Timber dues.	Bonus.	Deposits timber sales 1911.	Ground rent.	Total.
	Cords.	Cords.	Cords.	Pieces.	Cords.	Pieces.	Cords.	Cords.	Cords.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Western Timber District	22,029	34,995	16,414	4,257,445	139	3,667	6,973	12	82,739	6,490 35	9,491 38	22,187 13	1,196,054 32	582,891 67	54,802 17	68,574 00	1,940,491 02
Belleville Timber District	127	72	156	7,674	323	1,140	.....	.....	201	230 00	27 55	4,887 77	23,318 10	.....	.....	5,330 00	33,793 42
Ottawa Timber District	.....	1,663	.....	5,713	248	10,144	.....	.....	7,786	390 00	675 82	4,580 71	141,414 17	.....	....	29,913 00	176,973 70
	22,156	36 730	16,570	4,270,832	715	14,951	6,973	12	90,726	7,110 35	10,194 75	31,655 61	1,360,786 59	582,891 67	54,802 17	103,817 00	2,151,258 14

"The expenditure for the up-keep of Algonquin and Rondeau Parks was $18,044.89 and $2,640.36 respectively. The amounts of the collections were: Western collections, $1,596,520.65; Belleville collections, $19,461.67; Ottawa collections, $95,456.55; total, $1,711,438.87.

The accompanying table shows the timber and amounts accrued from timber dues, ground rent and bonus during the year ending October 31st, 1911.

A New Wood Distillation Company for Ontario

The Dominion Wood & Lumber Company which was recently incorporated under an Ontario charter with a capital of $250,000, has commenced work upon the construction of its plant. The purpose of the company is to carry on a wood distillation business and manufacture the various other products connected with such an industry. Among other products will be wood alcohol, charcoal, acetate lime, etc. The head office is at 123 Bay street, Toronto. The factory will be located at Trout Creek, Ont. The officers of the company are: Jacob Kaufman, Berlin, President; A. E. Clarke, Toronto, Vice-President; Thomas Hodgson, Orillia, Manager and chemical engineer; Gilbert Trussler, Trout Creek, Ont., Sec.-Treas. The balance of the Board of Directors is made up of: W. S. Kelley, Bridgenorth, Ont.; W. J. Foster, Toronto, and Edward Clark, Toronto.

The company have contracted with the Ballantyne Lumber Co., Toronto and Trussler Bros., Ltd., Trout Creek, for a supply of cord wood for the next 20 years, to be delivered at the plant. The two companies who are to furnish the cordwood have constructed 10 miles of track during the past season and have purchased rolling stock so as to be able to furnish the cordwood with the lowest possible expense. The factory will be constructed entirely of concrete so as to insure it against loss by fire. It is expected that manufacturing operations will be commenced about the first of September. The company already have a supply of dry hardwood upon which to commence operations.

Northern Ontario Timber Resources

"Haileybury as a lumbering centre," is the title of a prophetically conceived article recently published in the Haileyburian, of Haileybury, Ont. The claims made in the article may be considered a trifle too optimistic by some lumbermen in other parts of Ontario, yet they are interestingly suggestive of a great future for Haileybury and are in refreshing contrast to the pessimistic reports one hears so frequently regarding the approaching exhaustion of our timber resources. The article referred to is as follows:

The fact that upwards of $350,000 is distributed from Haileybury offices of some of the largest lumbering concerns in Ontario every year surely entitles Haileybury to the title of a lumbering centre. Yet this is a feature which is overlooked by quite a number of people who live in the town. Haileybury will before long be one of the greatest lumber centres in Eastern Canada, for several reasons. A question which is sometimes asked is "How is it that some of the big lumber people such as J. R. Booth or the E. B. Eddy people do not build a mill here?" And at first glance it does seem surprising that these lumber barons continue year after year to have their logs towed past Haileybury down the lake, and driven along the River Ottawa to the Capital of the Dominion to their sawmills and pulp-mills, when they could save all that cost by manufacturing them right here. The reason of this apparent waste is that these big lumber interests already have their hundreds of thousands of dollars invested in mills below, and the bulk of the logs they cut do not come from as far north as Haileybury, but are furnished by the timber limits owned on the lower tributaries of the Ottawa. The logs and cordwood from this district are simply used to augment the main present supply, and as long as this is the case there is little probability of those concerns already established who have a sufficient supply in sight below Temiskaming, moving their plants to this district. This, however, is no reason why Haileybury should not equal or even excel the present lumber centres, for there are reasons which can hardly be overcome which will compel some one to saw a vast quantity of lumber somewhere within ten miles of Haileybury, and no concern which thinks of locating in this neighborhood can afford to go elsewhere. The supply of timber which has yet to be cut and floated either to Haileybury or past the town, consisting of pine, spruce, cedar and tamarack, is inconceivable. The quantity known to exist almost defies figures to express, and the amount of country which has not yet been explored, but which is covered with timber, is immense. Another feature which must not be forgotten is the fact that to-day there are millions of trees which were not regarded as worth cutting when the fringe of the district was cut over, which would be considered as marketable to-day, for as the big pine trees are becoming scarcer, the smaller stuff is becoming more valuable, and it will not be long before big mills are running almost entirely on timber which used to be considered as scrub. Added to this it must be remembered that every year that live timber is standing is adding to the size of the trees, and therefore by the time that any fair-sized limit is cut over it will be possible to go over it again.

Still another reason why mills must be established here on a large scale, is the fact that there is an immense quantity of timber of the heavier classes which will not float long enough to enable it to be sent far from the place at which it is cut. In this class is balsam, of which there is an incredible amount. This and other heavy woods could be driven as far as Haileybury, and sawn or made into pulp, and there is no doubt that there are men in the business who will grasp the opportunities which present themselves in this direction. It is rather significant that such great firms as the J. R. Booth, the E. B. Eddy Co., and other lumber interests have their agents lo-

cated here, while the firm of Gillies Bros. are closely in touch with the situation in Haileybury.

It is also worthy of note that the earliest industry in Haileybury was a sawmill. One of the factors which has hindered the development of the lumber industry up to the present has been the distance that the T. & N. O. Railway line was from the water, making it necessary to team the sawn lumber from the mill to the railway, but this difficulty is nearly removed to-day, and will be completely removed by the fall of this year, as the Haileybury spur, now under construction, connects directly with the waterfront. While it is not possible for any one to pose as a mind reader and say what Mr. C. A. Foster will do, it is only reasonable to expect that as Mr. Foster has labored night and day to get the spur built, and has said that he would have the mill running when the spur was built, it will not be long before the Haileybury sawmill will be running and turning out its full capacity of lumber. It is a well-known fact that more than one big outside concern has contemplated buying the mill when railway facilities were available. It will thus be seen that there are great openings for sawmills, pulpmills, planing mills, and woodenware manufacturers, so that lumbering may be relied upon as one of the great features of Haileybury's future.

A Record Raft of White Pine Logs

The accompanying illustration gives a fair idea of the size of a record raft of white pine logs which was recently towed across Georgian Bay and Lake Huron for the Cleveland-Sarnia Saw Mills

Ninety Thousand Pieces in One Raft for Cleveland-Sarnia Company

Company and safely delivered at their mill at Sarnia. The company has been receiving a number of exceptionally large rafts this year and the one shown in the illustration is said to be the largest which has been towed over the lakes in the last ten years. The raft was successfully landed in the company's booming grounds at Sarnia on August 5th after a journey of 260 miles from the mouth of the Spanish River. The raft was towed in patent booms made of 12 x 12 in. and 12 x 14 in. timber and in a bag shape. The logs were all loose inside of these booms, but in towing they pile up one on top of the other, so that sometimes they are 6 to 10 ft. deep in coming over the lake. As the logs are cork pine, the under logs are inclined to come to the top of the water, hence they hang together. They were brought down by three tugs: the "James Reid," "Sarnia City" and "J. M. Diver," and were ten days on the trip.

An idea of the size of the raft may be obtained from the fact that it contained 90,000 pieces, and the booms which encircled it were 1¼ miles in length.

Railway Regulation to Prevent Forest Fires

Order 16570 of the Dominion Board of Railway Commissioners, covers the method of equipping locomotives so as to prevent them from being a cause of forest fires, and at the same time lays down the liabilities and requirements of railway companies in the event of such a conflagration occurring. The order cancels earlier orders 3245, 3465, 8902 and 15,995, bearing on the same subject.

Every locomotive must be so equipped with smokebox netting as to prevent the discharge of live cinders. When equipped with an extension smoke box, the whole space through which the smoke ascends must be covered with a mesh not larger than 2½ by 2½, No. 10 b.w.g., the openings in this screen not to exceed 17/64 in. square. Diamond stacks are to have 3 by 3, No. 10 b.w.g., screen at the flare of the stack, the mesh openings not to exceed 13/64 in. square.

The ash pans are to have sheet iron dampers where practicable, and where it is not, 2½ by 2½, No. 10 b.w.g., netting, such dampers to be secured by heavy springs or a split collar. Overflow pipes from the injector or boiler are to connect into the front and rear of the ashpans in order that they may be properly wetted, and are to be used yearly from April 1 to Nov. 1, unless otherwise directed.

Inspectors must be provided by the companies at divisional and terminal points to examine, at least once a week, the netting, dead plates, ashpans, slides and all other fire protecting appliances, and to keep a record of every inspection, recording the locomotive number, time, condition of apparatus, and record of the repairs necessitated, this book to be open for inspection by the board. No locomotive must be permitted to operate on the discovery of any defects, until repaired. The railway must also appoint special inspectors to make an independent examination monthly, and to report the results of the inspection to the chief official responsible for the operation of the motive power. An authorized official of the board is to be free at any time to make an examination of the locomotive equipment.

No Lignite as Fuel

Employees are to exercise extreme care in not injuring the fire-protecting appliances, and to see that the back dampers are not open when running tender first. The depositing of fire or live ashes upon the tracks or right of way outside the yard limits unless immediately extinguished, is forbidden. Lignite is not to be permitted as a fuel on locomotives unless otherwise ordered by the board.

The railways are ordered to establish and maintain such fire guards along the line as the chief fire inspector may prescribe, the latter submitting to each railway annually a statement of the measures deemed necessary to maintain the line safe from fire. These measures may provide for the cutting and disposal by fire of all the debris and undergrowth, and the ploughing up of strips on one or both sides of the line as local conditions require, the intention being to adjust conditions to the degree of making the expense proportionate to the fire risk and the possible damage.

In carrying out the provisions of the Railway Act concerning the removal of dead grass, etc., from the right of way, the railways are forbidden to burn any ties, cuttings, debris or litter on or near the right of way between April 1 and Nov. 1, except under such supervision as will prevent the spreading of the fire beyond the strip. The chief fire inspector or authorized member of the board may require all such burning to be carried out under a written order.

The railway shall provide and maintain a sufficient force of rangers from April 1 to Nov. 1 each year for an efficient patrol, the methods of the rangers being subject to the approval of the chief fire ranger. The annual statement of the chief fire ranger to the railway shall provide for the number of men with their stations and duties, the acquisition and location of the necessary equipment for the transportation of the tools and force from point to point, and any other measures that are considered to be essential by him.

Railways that use oil as a fuel exclusively on all or any portion of the system shall be relieved of such part of these requirements as may seem to the Board safe and expedient.

Railway's Liability

All employees shall be ever alert to report the existence and location of a fire, train employees reporting to the agent at the nearest telegraph station and to the first section employees passed, it then being the duty of the person advised to notify the nearest fire rangers. Any fire presumably started by a railway shall be attended to either independently or under direction by the section hands or other employees that are available, provided those employees are not at the time engaged in labors immediately necessary to the safety of trains. When the men available are not sufficient, the railway shall employ such other men as are considered necessary, and when the extra men thus obtained are sufficiently numerous, the regular employees may be returned to their usual occupations. In this connection, any fire starting within 300 feet of the track shall be presumed to have started from the railway, unless proof to the contrary is furnished.

For the violation of any of these regulations, the railway shall be liable to a penalty of $100 for each offence in addition to any other liability incurred. Any employee or party included in the regulations, and who fails to obey them, is subject to a penalty of $25 for each offence, in addition to his other liabilities.

The Canada Year Book, 1911, which has been published by the census and statistics office, Ottawa, contains, as usual, a mass of useful information. The very wide scope of its contents makes it a welcome book of reference to the busy man who requires carefully prepared trade and commercial reports at his hand.

Canadian Forestry Association Convention

Arrangements have been practically completed for the fourteenth annual convention of the Canadian Forestry Association which is to be held in Victoria, B.C., on September 4th, 5th and 6th. A number of excellent addresses and papers have been arranged for and a series of resolutions of the utmost importance will be presented for discussion. Sir Richard McBride, Premier of the Province of British Columbia, and Hon. W. R. Ross, Minister of Lands, are taking a personal interest in the convention, and will address the delegates upon the subject of Forestry which is now uppermost in British Columbia. While papers and addresses will naturally deal with matters that concern British Columbia, they will not be confined to this, and in every way the convention will be national in character and embrace every part of Canada.

The program will include addresses of the most practical character by leaders in forestry and lumbering in Canada and the United States. It is proposed to open with a reception to delegates on the evening of Sept. 4, followed by regular sessions on Sept. 5 and 6, at 10 a.m. and 2.30 p.m. The regular sessions will be held in the hall of the Alexandra Club, which is centrally located and in every way fitted for such a gathering. On the afternoon of Sept. 6, it is expected there will be an outdoor entertainment in which the ladies may participate. The details will be announced in the program issued at Victoria.

It is planned to conclude the convention with a banquet on Friday evening, September 6.

Arrangements have been made with the railways which enable the Association to promise a rate of a single fare for the round trip to all attending the Convention from all points in Canada. This rate is, of course, open to ladies attending the Convention.

Full particulars degarding the convention and the railroad arrangements may be secured from the Secretary, James Lawler, whose present address is Victoria, B.C.

Substantial Trade Conditions in British Columbia

This is the season of the year when the business community assumes more or less of a waiting attitude and with it comes a corresponding decline in bank clearings, says a Vancouver report. But the trend of business is so certain of increased activity that the hesitating tone has entirely disappeared as a factor. Most pronounced as a contribution in this direction is the prosperous condition of the lumber trade. Both interior and coast mills are filled ahead with orders, and local trade is beginning to complain of delays in delivery. The real cause is the withdrawal of United States competition on the prairies due to the increased building in the States, thus leaving the Canadian field to the Canadian manufacturer. The second and equally important consideration is the prairie country's faith in a large crop, which from reports received here is well founded. Advantage of the demand has already manifested itself in a small increase in prices with the mills considering another advance should the orders continue to flow in at the present rate.

Another contributing factor in presaging an increase of activity is the letting of new contracts for railroad and other development. Hardly a week goes by without the announcement of some large contract let. Recently it was the bridge work on the Canadian Northern, and now all the firms are engaged in filling bids for the Alberni branch of the Canadian Northern on Vancouver Island, the contract for which is about to be awarded. Together with all the work now in progress, all more or less beneficial to the business of Vancouver, there is little wonder that optimism is the prevailing note. Building during July took a spurt, and the trade is looking for still greater activity. This branch of industry has sagged for the first half of the year. The idea was very pronounced in mortgage circles that the city was in danger of being overbuilt, and consequently the brakes on loans were put up, with a material decrease in building. This opinion is fast dissipating, and while building permits are not expected to equal those of last year, the total will make a very respectable showing.

Lumber Prices Stiffening in Alberta

There is more than ordinary activity in all branches of the lumber industry throughout central Alberta. Eighty-nine cities and towns in the district, reporting to the Edmonton Board of Trade, say that in many instances there are long delays in the delivery of all kinds of building materials. Mills in the interior are rushed and there is a congestion of traffic in most of the yards along the line of the Canadian Pacific Railway. The Grand Trunk Pacific and the Canadian Northern roads have day and night crews to handle their business in the yards. The reason assigned for the unusual activity at this time, is the withdrawal of some United States firms from the prairie provinces because of increased building in the United States. An additional reason is the fact that the grain crop now being harvested in the province of Alberta, Saskatchewan and Manitoba, will, it is believed, be the largest in the history of the Canadian West. Prices of lumber are stiffening and it is probable that advances will follow in the event that orders continue at the present rate.

Washington Pine Men Fear High Freight Rates

A despatch from Spokane, Wash., says: Except on the matter of railroad rates the entire tone of the half yearly meeting of the Western Pine Manufacturers' Association recently held was permeated by a buoyant and hopeful spirit. The general feeling given expression to was that the lumber business, after a long period of depression, was on the upward way. At the morning session a railroad committee consisting of T. J. Humbird, C. P. Lindsley and A. W. Laird was appointed to look thoroughly into the railroad rate question, which it was reported was likely to be settled both with the Canadian railways and in interstate commerce, adversely to the interests of the western lumber trade. The proposal of the companies, it was reported, would be to automatically raise the rate by a change in classification, pine under the new arrangements being classed with cedar instead of with general lumber. This would raise the rate of western pine to Winnipeg from 37 to 47 cents and effectually shut the door of Canadian trade to the products of local mills.

It was also stated that a new tariff has been filed at Washington, D.C., the effect of which will be to raise the lumber rates throughout the country. The committee will make every inquiry into these matters and take whatever steps are necessary with the interstate authorities.

It was reported that owing to the carpenters of San Francisco refusing to work with any lumber not finished in local mills, operated with union labor, Oregon and Washington dressed lumber was practically boycotted on the San Francisco market. A strong resolution, drawn up by G. M. Cornwall, was unanimously passed, protesting against the boycott.

Important Timber Deal in Alberta

Fifteen thousand acres of timber land at the mouth of the Macleod river, owned by residents of Edmonton, will become the property of E. A. Mann, H. D. Murphy and James Ludgate, of Orillia, Ont., if the deal, for which negotiations are now in progress, is consumated, as expected. The timber is valued at $100,000. Dr. A. Forin, manager of the holding company, announces that the prospective buyers visited the property recently and are highly satisfied with the stand. The Ontario people were accompanied by experienced cruisers, who made favorable reports. The sale of the timber area means the establishment of a large sawmill, the products of which will be marketed in the prairie provinces.

Freight Congestion at Edmonton

Failure of the Canadian Pacific Railway Company to deliver lumber shipped from mills in British Columbia to Edmonton resulted in a meeting of dealers and contractors in the rooms of the Edmonton Board of Trade, recently, when F. T. Fisher, secretary of the organization, was instructed to lay the matter before General Manager Bury at Winnipeg. The burden of the complaint was that the railway company has not sufficient terminal facilities and yard accommodations to handle the business. Mr. Bury has replied that everything will be done to facilitate delivery and has instructed local officials to assist the dealers and builders in every way. A crew of men is at work clearing the yards.

The Mountain Lumbermen's Association recently made application before the Board of Railway Commissioners for a special rate on lumber shipments from mountain mills to points in Alberta and Saskatchewan. Mr. W. A. Anstie, secretary of the association, presented the case for the lumbermen.

The following list of patents recently granted by the Canadian Patent Office relating to lumbering, is furnished by Featherstonhaugh, & Co., 5 Elgin street, Ottawa, Canada: 141,580, Jos. F. Bouchaid, Farrellton, Que. Sawing machines; 141,609, Wm. Jenkins, Meaford, Ont. Circular saw guards.

A Real Philanthropist

A northern lumber dealer contracted to supply a lot of lumber to a stranger. In looking over it, he found it full of knot-holes, and told his customer about this frankly. "You may not want this lumber," he said, and the stranger asked "Why not?" "I have to be honest with you," said the dealer—"It is full of knot-holes"—and the stranger only laughed. "I will take it," he declared. "This lumber is to go around some base-ball grounds. Knot-holes won't hurt matters any. I was a kid once myself."

The Retail Dealer and His Problems

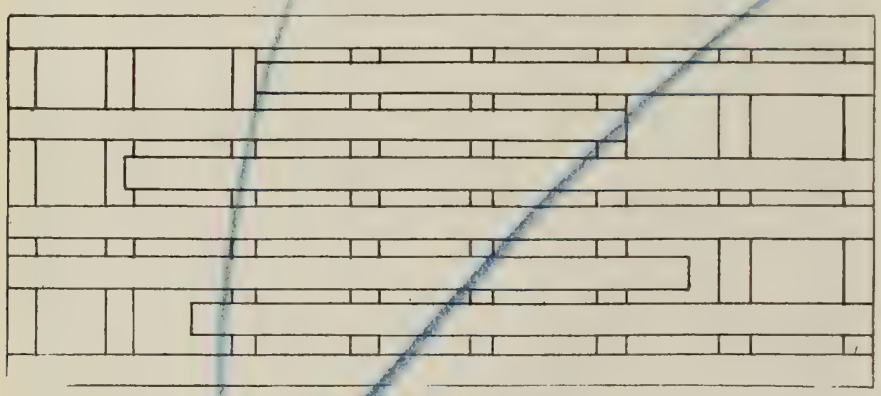
Suggestions for Piling Mixed Lengths—Short Length Troubles

Piling Mixed Lengths

Anyone in the lumber business will readily admit the importance of proper piling, and yet it is not an uncommon sight to see, in the yards of some up-to-date millmen, lumber piles with rear ends that are irregular and awry. There is more of this ragged piling of mixed lengths in hardwood than in pine, for the reason that pine dealers usually trim all their stock to two-foot lengths, so that there is not so much variety involved in sorting for length to make even piling. Among hardwood mills, however, more care is exercised in sorting, to have the longer length stock piled evenly.

In piling the shorter lengths, different sizes are often put in the same pile, which causes some boards to project a foot or more. This not only gives the pile a bad appearance, but exposes the ends to the weather, and they become season-cracked, warped and twisted and will droop in drying until the boards are badly damaged beyond the inside piling strips.

It does not seem to occur to many manufacturers that it is practical to pile short lengths without making the back end of the pile uneven. Sometimes an effort at orderliness is attempted by piling the longer stock at the bottom and loading the shorter pieces on it. This may be some improvement over indiscriminate mixing, provided it is carefully carried out, and there are cross sticks and foundation sills enough to support the piles, so that the short lengths on the top



Suggested Method of Piling.

will not cause the longer lengths underneath to sag between the supports.

It should be practical to pile short lengths, and even mix them in the pile, and keep both ends of the pile straight. It is simply a matter of care in building a pile foundation and using the crossers in placing the lumber. The best plan is to make the back a face end as well as the front and take the same care in making it even. The foundation should be large enough to carry the longest lengths in this mixed stock, and enough supports should be provided for one under every tier of piling strips. The best foundation would be concrete piers and substantial hardwood timbers for supports. Concrete foundations are practical and economical.

It cost a little more to build foundations for this kind of work, and takes a little more time to do the piling, but after looking at a few ragged piles, it will not be hard to convince one that the saving in lumber will more than offset the difference in cost.

Hardwood Yard Machinery

Neither the hardwood manufacturer nor the hardwood yard man will be likely ever to use wood-working machinery as extensively as the manufacturer or dealer in pine. There is not the need for it. Most hardwood lumber is better sold rough, for the reason that it gives the consuming manufacturer the benefit of the freshness of the face wood for finishing, and often this amounts to more than the additional cost of freight involved in shipping rough lumber as compared to dressed stock.

The hardwood yard man, however, often finds it advantageous to use machines, but the usual equipment is not extensive. It may include a trimmer, a rip-saw or side edger, or both, a double surfacer and a resaw with beveled siding attachment. Of course, if one makes a feature of dimension stock, it necessitates additional machinery. That, however, properly is an industry in itself, the subject herein presented being machinery that may be used to advantage in the hardwood assorting yard.

Sometimes one machine, the trimmer, will suffice. It is much better to cut off the bad ends of stock by passing it over the trimmer before shipping, than to mark the size and leave the trimming to the buyer. It makes the stock look better, and there is a saving in freight that will often reimburse one for the expense of using the trimmer.

It is practical also to employ the trimmer to raise lumber to a higher grade by trimming, especially if the lowering defects are near one end. This method of raising the grade should make the trimmer pay a profit, where there is enough work of the kind to justify its use. In rehandling untrimmed, small mill product the trimmer is especially commended.

There is some question as to the wisdom of trimming hardwood lumber fresh from the saw—whether it would not be better to season it before trimming. The best time to trim and grade, and know that the work is finished, is when the lumber is shipping dry. This will demonstrate the utility of the machine in a lumber yard.

As a companion piece to the trimmer, the side edger or rip-saw naturally suggests itself. It is not only a great convenience in reducing stock to special dimension to fit some order, but it also may be used as a means of raising its value by ripping off a defect on the edge of a board. Besides, there always is some stock about the yard that should be ripped and cross-cut to make it readily marketable. Some of it becomes spoiled by season checks, or from other causes until it has little market value; still, it may have good material in it that can be worked out in small dimensions, and made to bring a compensating price.

An ideal equipment for hardwood lumber yards would be a trimmer, swing cross-cut saw and a heavy type of rip-saw (a side edger or a table saw with extension tables front and back to support the stock). Such a rig would not be expensive and might be located at a convenient place in the yard, and preferably driven by an electric motor. In the country yards, however, small gasoline engines might be used advantageously.

Where poplar, gum, or cottonwood is being cut, and there is a trade for bevel siding and other structural lumber, the yard machinery equipment may be enlarged to include a planer and resaw. This would enable the yard man to make beveled siding and other material, and would put him in position to turn out box shooks, crating stock, and other material that might be marketed advantageously. It might also be found profitable, in view of the increasing use of hardwood in interior trim and millwork, for a yard to cultivate this trade by installing more elaborate planing mill equipment, and manufactude casing and base and a full line of interior trim.

Regarding this special millwork line, it is quite evident that the hardwood yard man must give more attention to machinery equipment that will enable him to put his lumber in better shape, raise the grade of some of it here and there, and make a better use of his product and get more money for it than obtainable through shipping it out straight, rough, or in whatever condition it happens to be. The age of discrimination in hardwood has been reached, and to discriminate properly in putting up lumber calls for the use of more or less yard machinery. The exact amount and kind of machinery depends materially, of course, on the location and the trade the yard man is catering to.

Selling Log-Run Stock

A prominent hardwood manufacturer advises his selling representatives that "selling log-run stock is a good deal like selling a man a house without plans or specifications, and that the term at its best is as indefinite as the word hat, as one may be worth fifty cents and another ten dollars." He advises his representatives that on future log-run lumber orders they can make sales with a guaranty as to the percentage of common and better contained therein. Thus they will not be taking chances of displeasing their trade, which constitutes an unprofitable and unsatisfactory transaction.

It is the belief of this shipper that a definite understanding as to what the log-run stock will show in grade should be made, and the facts should be covered thoroughly. On the present basis of log-run sale and purchase it is a gamble on the part of both seller and buyer. The shipper is in better position to assure his customer what his log-run stock will show in grade, than the buyer is to gamble on what it will show. —Hardwood Record.

How to Meet Competition

On the surface the retail business appears the easiest of any line to conduct, and it is, in a way. It would not be putting it too strongly to say that thousands of dealers have engaged in the retail business without thorough preparation and have succeeded fairly well. Unacquainted at the start with the primal elements of the methods which lead to a high degree of success, they have learned, little by

little, and not only have acquired a reputation in the community in which they live as capable business men, but a competency as well.

It would be unsafe, however, for the young man who has a desire to learn the business to take any of these dealers for a model to pattern by. They should look farther than this and take for models those dealers who have succeeded through an understanding of every detail of their calling. Simple as the retail business may appear to some as a business proposition, any man who stands near the top will admit that there is more to be learned than he ever has learned, or ever expects to learn. He may select a favorable location, but that is not all. He may surround himself with the best yard improvements imaginable, but that will not place him on the topmost rung. He may study the characteristics of woods until he has as nearly mastered the subject as any man can, still that is only a single qualification. He may be an adept at buying, knowing the special features of the various markets, and how to take advantage of prices and grades, yet this is only a step. He may possess large capital, with which those who lack it may think nearly all things can be accomplished, and not be a competent retail lumberman. The beginner may think this a long list of qualifications, but other qualifications might be added, and even then the list would remain incomplete. With a good location, excellent yard improvements, a knowledge of woods, an acquaintance with the markets, plenty of money with which to operate, there would remain for him to learn one prime lesson—how to successfully meet competition.

This is a phase of the subject that has given many dealers no particular concern for the reason that to no marked degree have they been called upon to consider it. They have not been so located that a deep study of the question was required. They may be in a town in which there is a single yard, and with little solicitation business comes to them. They may be in a town of several yards, yet competition may be easy, owing to the neighborly disposition of the dealers. But locate them elsewhere; in a town where every man is for himself; where every dollar's worth of business must be won; where it is diamond cut diamond; where the business is in the hands of men who have been trained in every detail that goes to make business an art; where shrewdness has been whetted against the world until it carries a razor edge—let them go to such a market and a realization of their incompetency would dawn upon them.

Whether in a trade, or a profession, other things being equal, he succeeds best whose knowledge of human nature is greatest. Without this knowledge one is constantly stumbling, and the more people with whom such a one comes in contact the greater the necessity for it. The retail lumberman should not only have a large number of regular customers, but should aim to gain new ones constantly. To treat customers well goes a long way toward meeting competition successfully. To so treat them, the temperament, peculiarities, likes and dislikes of each must be studied and considered. The young man about to engage in the retail business might not give a thought to the fact that a knowledge of human nature would be one of his most valuable assets, but if he studied himself closely, and the methods of the merchants whose names stand for success, he would learn that this knowledge of human nature is the keystone that holds the arch in position. If, with sufficient capital and possessed of the necessary qualifications, he fail to read his customers aright, then complete success will never be his.—The American Lumberman.

Forcing Short Length Stock on Unwilling Buyers

There are some questions in this list that I have elected to discuss in this department that remind me of the old puzzle question, "What would be the result of a meeting of an irresistible body with an immovable body?"

Of course we know now that such a question is altogether hypercritical, but I know we used to think enough of it to have it for one of the subjects of debate at our regular Friday afternoon's exercises at the school I attended. No satisfactory conclusion was ever reached, but it served the purpose of good mental discipline and I presume that was what it was intended for by the teacher.

Now, one of the questions I have taken up for this week is as follows: "How can I work off short lengths in fir flooring, ceiling, drop-siding, when my customers can go to my competitor and get all long lengths, regardless of the fact that I offer a concession of at least $5 a thousand on the short lengths?"

Another question, dealing with short lengths is asked, I presume, by another party: "How am I to keep down my stock of short lengths, when the company has loaded me down with this class of stock from the closed yards?"

A man has got to run a yard a few years in these new prairie towns before he can fairly comprehend and understand the conditions and the reasons for such questions. A city yard man would look upon it as a foolish idea for the customer to be allowed to dictate his will in a matter of this kind. He has his established rules that he knows are in common with those of his competitors, and the trade being acquainted with them as well, are educated up to where it does not ask for such privileges. But in a new town there is but little established other than its physical features. Human nature in its most selfish form endeavors to have a free course, and predominates in all social and business transactions, especially the latter. In so doing, it crops out in a variety of unreasonable and unjust forms and demands which are more or less successful because the fact that every business man in the same line is antagonistic to the others and therefore has no rules of doing except to "do the other fellow and do it first." Of course this state of mind and feeling is greatly to the advantage of a public that is united in its selfishness to get the better of every business man in whatever way possible, and it is a literal fact that "every man is for himself and the devil take the hindmost." It is a hard place for such a thing as conscience, and many a man in business has found it a most convenient thing to have and has put it in storage for awhile till the time comes when he can take it out and give it a chance to work without interfering very much in his business.

Must Accept Existing Conditions

Many a good man, too, has discovered before he has been in such a place very long, that he has got to take things as they are and not as they ought to be. But all the while he should be constantly endeavoring to bring about a better adjustment of those things that make for the greater harmony among the business men of the community.

It is invariably the case that where the retail lumber business in a country town is suffering from a lot of established customs that are unreasonable from either a moral or business standpoint, it will be found that these customs have grown from the unbusinesslike actions of some dealer or dealers who were there many years back when the town was new. Every old carpenter in the place has done what he could in assisting to keep them alive to plague the present dealers. In hardly two towns are the conditions the same in this respect. I know this from the experience I have had in running a yard in seven different places.

In one place I remember I found when I went there that it was hard to sell anything from a "jag" to a bill of lumber unless the privilege was given the purchaser of picking out and taking only what he chose to accept. It certainly was "fierce" the way they come at me. "Why," they said, "that's the way we have been allowed to do by the former manager who was here." Yes, I told them, and that's one of the reasons why he is not here now. You better believe I soon changed all that picking out sort of business for I would have thrown up the job rather than submit to such rank injustice, and when the man at the other yard found that I meant the real thing, he was glad enough to fall into line with my new rule in this respect. From that time on we "bossed" our own yards ourselves.

At other places I have found similar conditions and always found they were the result of a lack of stamina on the part of former dealers too ignorant of business and too weak kneed and afraid to exert themselves in maintaining what was fair and right.

A Matter of Training

The lumber buying public is just what it has been trained to be by the dealers in the place and if the dealers are foolish enough to permit the carpenters to dictate what they want, or the buyers to refuse to take the short lengths as they are shipped, you may be sure that after the present dealers have been succeeded by others, the effects of the old customs will have to be met by the later yard man.

This subject of short lengths was in the limelight a couple of years ago and was pretty thoroughly threshed over in the trade papers and at the association meetings. I've always thought the manufacturers of the coast products were in a way to blame for the cause of the dispute because of the adoption of the method of bundling the short lengths separately instead of packing them with the longer lengths, as do the makers of hardwood flooring. The latter don't make any difference in price, either. A two-foot length costs the

same as one eight or ten feet long, and when the trade understands they can buy it in no other way, they take it of course, and pass it on to their customers, irrespective of whether they like it or not. I have had a few parties who strongly objected to the short lengths and had the "gall" to want me to leave them out just because it was a small amount and wouldn't matter. I really believe if the producers had from the first bundled the shorts with the longs and made no difference in the price of the lengths, which would have made a lower average in price all round, the trade would have become educated to it and in turn have passed it on to the consuming public. As it now is, the very fact of a lower price being charged for the "shorts" has the effect of lowering the value of them in the estimation of not only the trade, but of the customer whom they are trying to sell them to, as well.

Take the average farmer, for instance. He knows very little of the grades and relative values of lumber. You want to sell him some "shorts" or have him take them in his bill, and the argument you use is that it is just as good lumber and as economic to use as the longer lengths. But, the fact that there is a difference of $5 a thousand is conclusive evidence to him that there is something back of your talk that he don't understand about its value. Then, again, the shorts, being in separate bundles, are seen in unfavorable contrast to the longer and being so suggest to the buyer of a bill to propose to take the bill at those figures if nothing but the longer lengths is given him. Naturally this is a strong temptation to the dealer to accept the offer, close the deal, and begin to load up the wagons. The competitor seeing that he has lost the bill, wonders what the turn was that caught the customer and landed the bill. In due time he finds out all about it and there and then nails down a resolve that next time he will go that fellow one better on the short length proposition.

If They Were All the Same Price

This difference in price that the mill men make instead of helping the dealer to sell the shorts, operates, in cases of strong competition, to his positive disadvantage because it affords a dealer so disposed opportunity to use it in making an unfair deal in the selling of a bill that includes the various items having "shorts" in them. Whereas, if they were all in the same bundles with the longer lengths and costing the same there would be small probability that a dealer would go to the trouble of unpacking the bundles and taking the "shorts" out to oblige anybody. But as things are in the sale and shipping of this class of lumber from the coast, dealers have to accept them and should adjust their methods of selling the "shorts" accordingly.

In places where the lust of selling is so strong with some dealers that he is willing to cater to the whims and prejudices of the trade to the extent of sacrificing all profits on his short stock, and even losing money on them, there are several courses to pursue to meet him. One is to make himself the whole of a bill at cost or less which will tempt him to try to work off some "shorts" in spite of his contract, or beat his customer in some other way. Another way is to duplicate his offer so as not to let him have the advertising that the sale of the bills would give him by the former plan. This is something which must not be overlooked or ignored in a new settlement where people are influenced in such matters by what they see and hear others speak of. The question is whether it is not better to lose a few dollars on undesirable stock rather than to suffer a greater loss in the prestige that a yard gets from the sale of bills to the new comers who are governed by appearances, for the sale of a bill means to them that the yard that it was bought at sold it at the lowest figures. It will never do to ignore this common sense fact.

The Shorts Will Accumulate

If such a course is pursued by all the dealers in the town, it naturally follows that all the yards will find at the close of the year they have a lot of this short stuff on hand which cannot be sold for any other purposes than for which it was manufactured. If the practice is kept up, it won't be but a year or two before the constant sight of the increasing piles of this stock will have strong enough influence to make them all amenable to listen to the only proposition that will do away with the folly of such competition, and that is, to unitedly refuse to sell this class of stock on such terms. Of course this is the best plan of all, and it is better still if you have the tact and diplomacy to get the offending competitor to change his methods before the public becomes too well accustomed to it. But in case he is one of the bull-headed kind of men who won't listen to reason and think your coming to him is a sign of your admittance that he has got the "bulge" on you, then you have either got to adopt one or other of the above plans or it is up to you to sell bills and get the purchasers to take as much of the short stock as possible. This can be done in proportion to the wit and knowledge you have to direct you. In other words, it depends on the quality of salesmanship.

The hardest competition I ever had was from a man who could sell anything in the form of lumber and still hold a trade that was satisfied to stick by him. He possessed the faculty of talking to a customer and making him see things as he saw them, or pretended to see. Not all of us have this faculty so well developed as this man had, but we all have it in a greater or less state of development, and if you are confronted with the proposition of selling short shock to unwilling or prejudiced customers, you very much need to study and develop your ability to sell it under such circumstances. The main thing in the selling of short stock is to convince your customers that it can be used to advantage in the work of putting up their building. But with the average man, however, talking is not much good in such a case unless you supplement it by showing them how it can be done.

Let me explain this by going a little into detail, get the plan of their building, or whatever sketch they have of it. Note the placing of the doors and windows on it, and the comparatively small area on the whole building that is covered by the long lengths without cutting. This alone will show them how small a quantity is really needed of the lengths they insist upon having. Measure the distances between the openings and note how many can be covered by the shorter lengths that will cost less than the longer lengths that will require to be cut into the same lengths which they say they don't want because they are afraid of waste or because their carpenter objects to them. I could never see the sense of anyone objecting to take the short lengths of flooring, and when you pin a carpenter down to give a valid reason why he rejects them, he can only give a woman's reason—"because." There is hardly a room in the average house but what in laying its floor you will see that the flooring has had to be cut and so if you take the pains in measuring the rooms of the plan you will find that short lengths of flooring can be used to advantage in such places as the pantry and closets and in the upstairs rooms where the country folks have not yet done away with covering their bedroom floors with carpets. Where the lower best rooms are to be finished in the natural color and grain, the greater part of the surface will be covered by a rug like carpet, leaving exposed a part of it next to the walls. Therefore, short lengths may be used where the rug or carpet will cover them.

Where Shorts Are Not Used

The short lengths of drop-siding are the most difficult to get carpenters to take to use in the building of a barn. The openings are few and long lengths make fewer joints to cut and fit, but there are smaller structures where the shorter lengths may be used as well as not, such as chicken houses, hog houses, privies, and a number of other uses that drop-siding is sold for. I presume that five-eighths ceiling is the thickness that is principally used nowadays, and the ceiling of porches and wainscoting the kitchen is mostly what it is used for. Wainscoting is usually about 2 ft. 8 in. or 2 ft. 6 in., consequently there is a waste in cutting unless you have "shorts" that will make two pieces. There are some porches where some short lengths may be used without loss.

On the whole, if you will take the trouble to go over the plan of the building with the owner and point out what I have indicated, you can convince him that the short lengths can be used as well as not without any detriment to the building or loss to him whatever, and at the same time, save him some money. If, as I have said, you can make him see these things as you see them, you will be able to meet successfully the other fellow's bull-headed competition. I have done it myself and I know the average dealer can do the same if he will "get down to his knitting."

There is one reason why the average country carpenter objects to the short lengths of stock that require a finish joint, and that is because he is unable to make it without taking a good deal more time than a more skillful man can do it in. The cheap men that farmers generally hire to put up their buildings can hardly saw a board squarely in two. They have few tools and what they have they don't know how to keep in order. Consequently the making of a finish joint gives them more trouble than the using of a longer length. If I had a lot of "shorts" unloaded onto me from a closed yard I would seek out the man who had to build, but had but little money and show them how to use the short lengths at a saving of capital. Then again, I would go for the carpenters who had contracts to furnish the material and by offering them special inducements I could get them to take anything that would add to their profits on the contract. In these cases, carpenters are not so particular as when the owner is furnishing the material.—C. H. Ketridge, in the Mississippi Valley Lumberman.

Gordon Grant & Co., Ltd., Port-of-Spain, Trinidad, report under date of July 22nd as follows: Lumber and cooperage materials—The only arrival in pitch pine is 350,000 feet by the s.s. Frednes from Mobile. A prompt cargo or two of good quality suitably assorted for this market's requirements would find ready sale at full rates, but there are ample stocks of American and Canadian white pine at present.

Contracting as a Side Line for the Retailer

By W. A. Cavin.

To begin with, I am quite sure that those retail lumbermen who do a large general contracting and building business will quite agree that it is about the biggest side line you ever took on. To me the simple running of a lumber yard,—doing nothing but buying and selling lumber—would be a paradise, a dream of comfort and ease, traveling a path of roses with expenses paid by cheques from home. I used to wonder how my good friend and neighbor could spend half the summer season away from his yard, basking in the sunshine about his summer home on the lake,—how so many of you could afford to chase about the country seeking rest and relief from the heat of the season while I, with a greater desire for rest and a less inclination for work than anyone else, had to keep up the daily grind from spring until winter. A little study solved my query—All in the world you have to do from one year to another is to buy and sell lumber. What a cinch!

In a general way this contracting game reminds me of a planing mill proposition—a necessary evil under certain fixed conditions and a positive necessity when once established. Beware, brethren, do not be the first to offend by starting this game in your locality. It means work and worry to start with and more of the same as the game progresses.

To win you must be a walking dictionary, nay more—a practical architect, mechanical engineer, plumber, painter, decorator, carpenter, mason, roofer and a man with keen ability to handle and govern the many varieties of tradesmen—all this in addition to being a real live retail lumberman. Was there ever a man so generously blessed with so great an abundance of knowledge and skill? Well, none of us are perfect and all of us will fail somewhere whether we are a lumber dealer, a contractor, or both.

Disadvantages

You will grant that the big men in business, those who have won the greatest victories, have accomplished their ends by concentration on one single thing, by making no division whatever of their energies. In proof of which I again use the planing mill. Run as a separate and distinct business there are many mills paying large dividends; while, in connection with the lumber yard, a profitable mill is about as hard to find as a lumberman's profit in the chicken business. So with contracting as a side line for us. Unless the boss is hanging around the job or about the yard one or the other will suffer in his absence and if each drags half of the time, it is the same as if one was running itself all the time without a head. No business will run itself. Met Saley has spoken thus and his word is final. I make the assertion that no man can, by his own efforts, successfully run a lumber and contracting business. He must shift the active, mechanical work to other shoulders and share only in the financial responsibility and profits of the combination. In this manner each department has its governing head.

Conditions established by long years of precedent govern the advisability of this so-called side line. The community acquires the habit of doing business in certain ways. To radically change these methods of doing business is not an easy thing. Therefore a new dealer coming into a town in which lumber dealers do contracting is driven to the same business to find a market for his lumber.

Advantages

Granting all the above disadvantages in this business game, there are many both pleasant and profitable things to be considered. I once knew a dealer in a one-yard town who had been a successful contractor during the earlier years of his life and, like many others, drifted from that to the lumber business. He believed, though seemingly quite contrary to most present day contractors, that he ought to have a fair profit on material sold and he practised his convictions. The other contractors in his town, growing dissatisfied, began to buy their lumber direct and boldly claimed they would show him a thing or two. "All right," said my friend, "two can play your game." He got busy at once, jumped into the contracting business himself and with his yard to fall back on, outbought and therefore outfigured the opposition until they were willing enough to sue for peace and buy at home. Thus the poacher was kept out. We figure with instead of against our contractors, sublet them work and in many ways use our contracting department to regulate our local trade conditions.

We sell labor as well as lumber. All the time some of our men are doing repair work by day labor, both in town and out. On their time should be made from 25 to 50 cents a day. Of course our customers buy the lumber as well as the labor of us, and the value of a large trade in repair lumber, small additions, roofs and porch work is well known.

If you govern the contract business of your city you are free from bowing and scraping to the other contractors. You govern them instead of their governing you. You make them take and use what you have to sell instead of their dictating to you and exercising every prejudice and foolish fancy against your stock on hand. The contractor is not then the all important factor in your business, to be looked up to, catered to and obeyed.

Collecting

Collecting is a mighty important factor in our business. It is said that the last account anyone pays is his lumber bill. We find that it is much easier to collect all of an actual bona fide building contract, extras included, than it is half the amount in a straight lumber account. Most lumber bills sold in the smaller places go out on good will without a properly signed contract. This condition is just the reverse with general building work. It is easy to get a signed contract and the collection is likewise simplified. The contract account is thus protected by legal agreement, while the lumber bill is sold on good faith.

The cost of selling lumber should be less with the contracting side line than without, because you are selling a large majority of material to yourself instead of to outsiders. Neither of our yards does any advertising except what is necessary for local charity and benevolence. We are also relieved of the waste on poor material returned from a job, for we use this again, at full value, on some other job, whereas we could not realize its worth by selling it to some other contractor. There is less picking over of stock and throwing out this, that and the other into degrade or trash.

Forgotten Charges and Dead Stock

Yard men constantly forget to make charges. If these neglected items go to our own jobs and the contract was figured right we do not lose, as would be the case with an outside contractor who paid in the end only what our books said he owed.

There are a few of the things to be said in favor of a contracting business in connection with a retail yard, but the greatest of all is the ease and profit with which you can work off dead stock and odd patterns of this and that which you are able to pick up so often at bargain rates.

In this way there is a legitimate double profit—that from your lumber and a part of that from the contract itself. We keep the two branches of the business absolutely separate, charge the material on each job to ourselves at retail prices, charge the labor to each job weekly and at the end charge our part of the general contract profit as so much gain on the labor cost of the work.

To sum the matter up, I should not advise any one to jump blindly into this side line, if he already has a good profitable lumber business and if his locality does not demand the venture. The extra profit made in the contracting business does not come easy but is earned at the expense of much time and worry. However, it is interesting and a profession of the highest rank.

Free Delivery of Lumber

The question of whether lumber should be delivered by the dealer, or the purchaser be compelled to come to the yard and take it away, has probably been a topic for discussion since the first retailer of lumber went into business.

In most talks on this matter the subject has been considered as dividing into two distinct parts, one relating to the city yard and the other to the so-called country yard, but the problem is the same to both and should be so considered.

In the first place it might be asked—Why should we deliver? And my answer would be, because it is a legitimate part of our business, and having the proper facilities and men trained for the work, we can handle the stock cheaper and deliver it at the job in better average condition than can be done by hired draymen.

The second question might naturally be—How far should we deliver? And my answer would be, just as far as the expense involved is covered by our price to the customer.

We thus have two important points for consideration, and of sufficient weight to warrant a more detailed discussion.

Delivery should not be considered as something forced upon us, perhaps by competition, but rather as a part of our business we are glad to control, and as much a part of it as unloading from car and piling in shed; for it insures satisfied customers, and the placing of our goods on the job carefully and as wanted and without the damage easily done by careless handling.

As the Customer Sees It

Let us look at this matter from the customer's point of view, and if we put ourselves in his place for a moment we will see that in all modern mechandising delivery is an essential part of the business; all the customer is asked to do is to select and buy the goods. The merchant does the rest.

We will also see that lumber is a bulky commodity requiring special facilities for safe and economical handling, and the purchaser should not be required to provide such facilities for perhaps a casual

purchase or to take the time to hire someone to handle it for him and assume the risk of careless handling.

So from this standpoint there is no valid argument against the delivery of the goods we sell to the community dweller, anyway, and to all where dictates of economy will permit.

We now come to the points of difference usually made between the city and the country yards, but the same underlying principle governs both, subject, however, to the limitations imposed by the answer to the second question—How far shall we deliver?—And to some extent by the class of people patronizing the individual yard.

In general it may be stated that all yards should deliver to all parts of the community where located, the boundaries being roughly determined by the dividing line between the more settled sections of town workers and the farming or gardening sections who have horses or teams of their own.

This will perhaps be further determined by the fact that from the first class, or town workers, having no facilities of their own, you can add to your price a fair rate for delivery within these limits; while beyond that point the buyer can handle it cheaper than you, and, buying as he does at the yard, it is up to him to handle his own carefully.

The limits of delivery being determined, it is not much trouble to ascertain the cost of maintaining that part of our service and its proportion to the amount of our sales, so that we have a definite percentage or amount to take into consideration when making our prices.

The point has sometimes been raised that it is unfair to make an average rate for delivery, and in some places lumbermen have tried varying prices based upon the distance from a central point. But this is contrary to the custom of all other merchants, whose experience has shown that one price to all within determined limits is right and the average expense is fair to all.

The item of delivering varies, of course, in different communities and generally speaking, increases with the population; so that a city yard having long distances to cover has to maintain a proportionate force and outfit, while in the country yard the teamster may also work most of his time in the yard; thus making a very material difference in the amount of this item to be provided for.

It is also contended by some that a yard should maintain two prices, one covering delivery and the other at the yard; but as shown above in cities where the delivery item is largest only a very small percentage of the lumber sold is taken away by the purchaser; whereas in the country yard where the largest part is so taken, the delivery expense covered in the price is a small item and does not more than compensate for the extra time and trouble in showing and loading the customer.

I am a firm believer in one price for all and see no unfairness in making everyone contribute his share of our average profit, rather than to figure out each individual transaction by itself, which, of course, would be impracticable.

Not an Evil

To my mind the most important part of this subject has not often been considered owing to the general attitude regarding it.

I think we should forever dismiss from our thoughts the idea that this is an evil, necessary perhaps, but nevertheless one of the most obnoxious parts of our business, and look at it as other up-to-date merchants do as an integral part of modern merchandising. When we take that attitude we will aim to improve our service and make it pay. Here is where we have been often decidedly wrong. We have regarded it as an expense, whereas it should and can be made to pay its share toward our support.

Let us eliminate the word "free" from this topic, as we must confess that it indicates a lower business ability than we are supposed to possess, if in this day and age we are doing something for nothing, or, to say the least, without adequate compensation.

Money Saving Yard and Office Devices

By H. J. Jackson.

I do not know that I can tell you anything new about economical and money saving yard and office devices. Every year brings new business conditions, to which we must adjust ourselves as best we can; taking advantage as we each of us see it of every turn and change in the situation. New conditions bring new requirements of stock facilities for handling it and added facilities for accomplishing these ends. This applies to both the yard and the office.

It is a cardinal sin to pile incoming stocks of lumber, lath and shingles on top of old stock; better move the old out and put it one side to dispose of first; or if pressed for room pile back on top. It has become an axiom with the retail yard man that a nicely kept stock and a clean yard are about the best paying investments that he makes. Sharp competition and the close margin on which the average retailer has been compelled for a number of years to sell his stocks of lumber have put him in touch with every modern and up-to-date method of doing business. There have been many much needed changes in the manner of conducting a retail lumber office.

A Complete System

I will illustrate our method of handling the business in our office from the time it originates until it is entered in our loose leaf ledger. We have no lumber order book. Orders are made in duplicate, the yard ticket or loading ticket on a salmon red paper, and office copy—both being made at one time by the aid of carbon paper—on white paper. We have a small file or receptacle with three compartments accessible from both sides of the main office desk. Those orders which are for immediate delivery are put in the top till or compartment, those which are for later delivery or for delivery on a stated day are put in the middle compartment and a record made on a calendar kept for the purpose. Those orders which have factory work on them which also carry other stock which is to go at the same time are put in the lower till. The factory orders are checked off these red tickets on a sheet of yellow paper and when the factory order is completed it is returned to office and attached to duplicate ticket in lower till and placed in middle till. The tickets in upper till are gone through every morning and noon by the man at the desk together with the yard foreman so that orders will not be overlooked or delayed. The white ticket or duplicate goes into a book file.

The original orders or red ticket is sent into the yard for shipment and as each item is loaded it is noted with a check mark in front of it on a blank margin, or so much of it as has been sent. The ticket then goes to a man who enters it in a four-copy autograph registering machine, and the date of shipment is placed on ticket in ink over each check mark. If the ticket is not all checked out it is put back in the top till of the file in the desk so that the yard man may go on with the deliveries.

Handling of Invoices

The four invoice or tickets that go through the machine are for disposition as follows: Delivery man takes two copies with him in an aluminum book especially made for the purpose; following the usual course of leaving one, getting the other receipted and placing in book and returning to office. Unless it is a C. O .D. order the tickets are not extended, except as to feet extensions. The third copy, when the price is extended and checked on the following morning, is mailed to customer. Sometimes when a large or continuous order is being filed, we bunch two or three days' shipments in one envelope to save postage. Numbers 3 and 4 tickets go on to a desk where the bookkeeper or his assistant takes the duplicate white order from the file and checks from it what has been sent and date of delivery. When the white ticket is all checked off it is taken out of the file and destroyed. The original or red ticket when completed is placed in a file in the vault, and kept there until the end of the year, when the file is emptied and the tickets are placed in cheap boxes with alphabetical separations between them, as in the original files. These are kept for two years more and then are destroyed. The receipted delivery tickets or invoices are placed in a sort of file made for the purpose, each month by itself. All invoices or delivery tickets are consecutively numbered. Printed on the No. 3 ticket in very plain letters are: "This is your invoice; preserve it for reference and settlement. We do not invoice again."

Ledger Entries

In making the entries in our ledger the items are not recorded, just the number of the ticket, the date and the amount in dollars and cents covered by it. The monthly statements do not cover any items, just ticket number so-and-so, with extensions to correspond with the ledger. We find that if any special contract has been made it is best to put these prices on the white ticket so that when the extensions are being made the prices can be found readily, if they are out of the usual course of business.

The way we file the original tickets or orders enables us to tell a customer just what he ordered at any time for three years back with very little trouble. We find it very handy to convince some forgetful customer of his error, as we in all instances check back or repeat the order at the time if it is given over the telephone or any other way except in writing. We preserve all such original orders in a file kept for that purpose and that, too, saves many an argument.

Competent Office Workers Needed

I think this covers all I have to say in this respect, as the balance of the work is merely a matter of correct bookkeeping. We find that under the present car demurrage rules it is very necessary to keep a car record ourselves and not leave it to the railroad. For they have very bad memories, and are not always fair. On receipt of an invoice an entry is made showing whom it is from, car number, where shipped, when received, or the date of its arrival, when placed and when released. Since the first of last December we make the car checker settle with our man every day as to the state of every car on our tracks and then there is no after dispute and we

can have our scrap with them while everything is fresh in our memories.

We find from extensive experience that cheap, incompetent help in our office is a bad investment, and while we try to keep down expenses in every way, think it is poor policy to try to work too cheap help in our office or in responsible positions in the yard.

Holding the Trade

How the Local Dealer Can Keep Business at Home

A number of interesting and instructive communications have been published offering suggestions and ideas concerning the catalogue house problem, but it is to be regretted that a large number of those who are especially well qualified to offer counsel and advice do not seem to have the time or inclination to assist their less fortunate brothers, says the Mississippi Valley Lumberman. This new form of poaching on the trade of the legitimate merchant is of somewhat recent origin and accordingly it is not to be presumed that the ordinary individual dealer would, from experience, have acquired an adequate knowledge as to just how to successfully combat these pernicious competitors. For that reason a very general exchange of ideas should be helpful and beneficial to the rank and file of the retail lumbermen.

In discussing trade topics, frequently retail lumbermen will refer to some recent experience they have had in competing with the mail order house and with a good deal of satisfaction relate how they had been able to get the better of these competitors. For the benefit of our readers, it occurs to us that some of these experiences might be of value.

A dealer who resides not far from the headquarters of one of these mail order houses confessed that for some time he had not exercised good judgment or discretion. Intent upon the laudable ambition of retaining the trade of the community, he had blindly made quotations which he found later were far less than these mail order houses were offering to sell the same class of material. This experience had demonstrated to him the necessity of knowing definitely what prices these competitors were making. The mail order houses he had found, were as intent upon making as liberal profit as any dealer. In order to do so, however, they were frequently compelled to make misrepresentations and practice deception. As a result of some judicious missionary work on his part and that of his local competitor, the prejudice that unfortunately had existed in the minds of the public against the retail lumbermen had been very generally effaced.

A few years ago these direct-to-the-customer concerns were regarded as special protectors and friends of the much abused consumer. The absurd claims they were making and the unscrupulous manner in which they attacked the legitimate lumberman had, at least in their community, produced a general mistrust and a prejudice against these concerns. In his opinion, the sooner the local merchant accepted this new competition as an established fact and adopted efficient and logical means for meeting this competition, the better it would be for the retail lumbermen. While condemning their policy of practising fraud and deception, he admitted that they represent the highest type of modern merchandising. They knew the value of suggestion in stimulating or creating trade. For this purpose they were spending millions of dollars in advertising and sending letters, circulars and pamphlets through the mail.

Catch Prices on Minor Items

Another lumberman, who presides over a small system of yards had been giving careful consideration to this mail order problem. Speaking frankly, he said: "I have come to the conclusion that the average retail lumberman has been making a mistake in adhering to time honored customs. It has fallen to the lot of the local dealer to handle a lot of small odds and ends and we have rightly considered that we should get a liberal profit for the sale of these speciaiities. Take for instance the item of eight-inch spindles. I don't suppose that the total sale in small lots of these articles would amount to more than 50 cents a month. The established retail price for this kind of spindles is 5 cents each, although at wholesale we buy them for about 1½ cents. The mail order houses, I find, are quoting these spindles at 2 cents each, f.o.b. their freight warehouse. Another article which the retail lumberman sells occasionally is thresholds. We buy them at wholesale for about 5 cents and we consider that we ought to be able to sell them in small lots at 15 cents. We all know that the customer who comes in to get one of these household articles usually wants to pick over our whole assortment, uses a lot of our time, and frequently asks us to wait indefinitely for our pay. These mail order houses list these thresholds at 5 cents. One party who was in our yard not long ago getting prices on a half dozen thresholds, became very indignant when our yard man asked him 13 cents each, and claimed that he could get them from the catalogue houses for 5 cents. Our agent, however, was able to show him that the cost, including express charged and the exchange of the check or money order and the postage required would amount to approximately what we were offering to sell them to him, delivery to be made immediately. When we furnish a house bill where a number of thresholds or spindles are used we have never adhered to retail prices. In studying this problem, however, I have come to the conclusion that it would be a good policy for the retail lumbermen to adopt some of the catalogue house methods and offer to sell some of these small specialties at approximately wholesale price. The amount of profit lost would not be very large and I believe would be efficient advertising."

Apparently, the ambition of a great majority of the public is to get something at a very much reduced cost. The science of modern merchandising takes that fact into consideration. To attract the trade, the big department stores will offer a few staple articles at ridiculously low prices, knowing that the amount of material purchased by those seeking to take advantage of the bargain materially stimulates the trade and produces a very substantial profit on the entire sales. Why shouldn't the lumbermen adopt some of these means of stimulating their trade? This can only be done by offering some real or assumed incentive to attract the prospective consumer. The keynote of success in the commercial world to-day is advertising. Mail order houses have to depend entirely upon printer's ink. The local lumbermen can use to great advantage his personality and acquaintance. The dealer who makes his yard and office attractive and encourages the use of his establishment as headquarters for the farmers coming to town or for a general rendezvous for responsible business men in the community, is doing effective advertising. The lumbermen can well afford to take a personal interest in the affairs of the community and either personally or by a competent employee call upon as many of the regular and prospective customers as they possibly can.

Interest The Yard Manager

In discussing this mail order house competition with different retail lumbermen, I have come to the conclusion that the local managers in charge of the yards operated by the big systems, must be induced to do their part. As a class, the agents are broad minded, enterprising and practical lumbermen. Unfortunately, however, some of these agents are not using pudgment and discretion in meeting this new complication incident to mail order house competition. It is a well known fact that all goods purchased from the mail order houses are paid for before the goods are delivered, the consumer also assuming the expense of taking the material from the car. Experience has demonstrated that it costs at least 5 per cent. of the value of ordinary building material to take it from the car, store it in the yard and deliver it to the customer. There has been a number of instances called to our attention where some local manager has insisted that the company give him the privilege of selling a bill of lumber at the prices quoted by the catalogue houses although the material was to be taken from the yard and there had been do definite agreement made as to the time of payment.

Some of the line yard systems are adopting the very logical policy of offering the consumer his choice of two propositions, one contemplates selling the material on exactly the same terms as those demanded by the mail order house and the other grants the usual concessions which have been given by the retail lumbermen for years. The ordinary bill of lumber sold by the local dealer is delivered as the material is needed, often with the privilege of making substitutions and changes, besides returning any material which has not been seriously damaged. Such a definite policy, we believe, is the only logical way of handling this mail order house competition. The retail lumberman, whether he operates an individual yard or a big system, must insist that the consumer live up to his part of the agreement and if they buy for spot cash and assume all expense of unloading, the money is to be paid when the material arrives and the buyer assume the loss from any errors or mistakes which he, the contractor or carpenter has made.

Eastern Spruce in Good Demand

Chase, Talbot & Co., New York, report under date of Aug. 1st as follows: There is a generous demand for lumber in the Metropolitan market, eastern spruce commanding particular attention. Real estate is showing some signs of increased activity. Yard dealers in lumber report a healthy and substantial trade. Wholesalers are kept upon the move, while the mill men advise that they have booked dimension orders sufficient to engage their mills for the next few weeks. We shall be surprised, as well as disappointed, if prices do not hold firm throughout the balance of the shipping season, with a volume of business fully equal to the capacity of the mills. We repeat quotations as follows:

Spruce 2 x 4 desirable lengths $23.50 to $24; 2 x 6, 2 x 8, 2 x 10, 4 x 6, and 4 x 8, fair run random lengths $25; 3 x 8 and 3 x 9 $25; 2 x 9, 2 x 10, and 2 x 12, or 3 x 9, 3 x 10, and 3 x 12 $26 to $27, according to lengths. Dimension spruce $24.50 to $27.50.

THE WOODWORKER

Making Shaper and Sticker Knives

By Cyrus L. Oakley

In answer to a recent inquiry I have submitted a series of drawings, with full explanation for laying out and making both, endeavoring to make it all so plain that any one who may be interested in such work can easily determine how to make knives for either machine.

We will first consider the molder, on plate 2. Drawn and sectioned is the end view of a molder head—sectioned for the purpose of making it distinct from the two others drawn in full and dotted lines. This is about the standard size for 5-in. to 7-in. molder. The other two are perhaps larger than any standard size for 7-in. to 12-in.

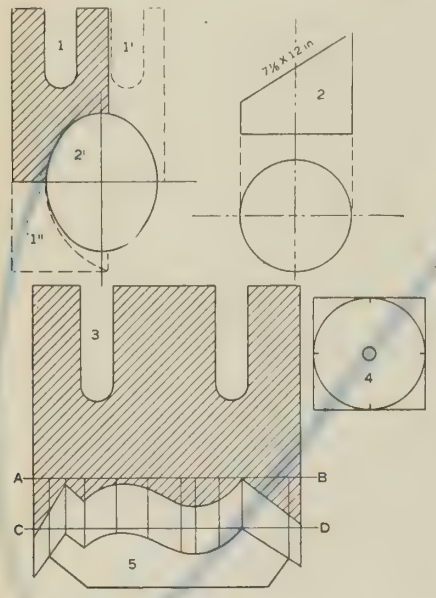


Plate 1

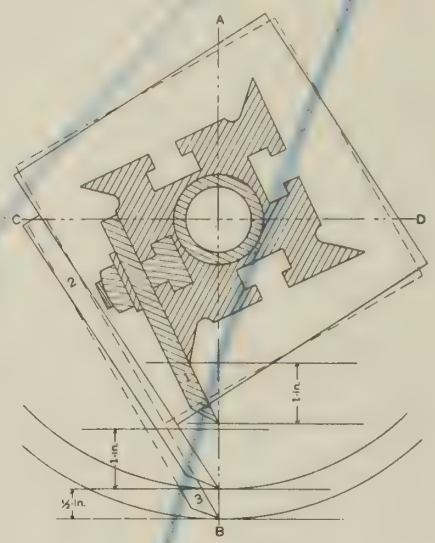


Plate 2

machine. This is done to show the difference in position when cutting one standard inch in depth and the same sized head cutting 1½ in. deep.

It seems to be quite a serious question with some operators just how to make cutters in the most practical way and have all the different members on a detail to pan out to the drawing. The first thing to do is to take a flat, clean piece of board, joint one edge straight, 8-in. or 10-in. long and 6-in. or 8-in. wide, and in centre of length lay on your square, and with a sharp knife make a nice mark across the board, then from the jointed edge gauge a fine line parallel to the jointed edge. Now take a nice, clean, firm piece of cardboard or thin wood, large enough to make a square with a diagonal equal to the sweep of any sized head desired, on line A B C D of plate 2. For example, at the intersection of these two lines press the point of a common pin, holding your thin template in centre, and at the same time allowing it to be moved back so as to get any desired pitch for cutter. Place it on your board, and, parallel to horizontal axis of revolution, draw another line just at the extremity of the corner of the thin template, after bringing its corner to the vertical line as A B, plate 2, thus locating a definite starting point. Take one standard inch from this, then draw another line. This determines the exact distance the cutter projects over the lip on your cutterhead and also shows the exact pitch as taken from a steel square on plate 5. Now, if you wish to cut 1½-in. deep with the same sized head, just draw a line 1½-in. down from the first line, swing your template back until, by placing a short straightedge against the side on which the cutter is placed, your straightedge exactly strikes vertical line A B, plate 2. For making cutters for any nosing, quarter-round, half-round, also true coves of any dimension, take the pitch at which the to take a piece of wood large enough to make a right cylinder, as in plate 5. For small details I advise, for convenience and exactness, to take a piece of wood large enough to make a right cylinder, as in Fig. 2, plate 1. Centre it perfectly, leaving centre marks across the end, as in Fig. 4, plate 1; then turn to a given size; then, after having taken a square stick somewhat larger, and centering it, bore a hole through it just right to push the turned cylinder in; push it in, bring the centre in line with lines on end of the bored shell, tack a small brad in left-hand end to keep in place, then any time desired take the pitch you wish from your drawing, either for shaper or molder, and mark across the top the bevel, and down side toward you with a try-square, and cut off with a fine saw. This gives you a perfect quarter-round, as shown at 2', plate 1. For half-round make knife by one-half figure, etc.; for example, see 1 1', plate 1.

For making true coves employ exactly the same method, only fitting knife to inside of figure instead of the outside. Rounds, beads, heads of different sizes and different sweeps, all have different pitches—see drawing for illustration. In duplicating or reproducing any molding on molder or shaper, cut your pattern in miter box, any pitch desired for various sweeps, tack it on the bench, place your blank cutter against part so cut, lifting high enough to take in all the members, mark around each member with a fine, sharp pencil, first chalking if necessary, cut to these marks on emery wheel, then grind back to the desired bevel, cut in bolt slots for molder bevel to fit collars for shaper, then temper, and you have a perfect cutter for either machine. (See Fig. 1, plate 5).

Fig. 1, plate 4, shows method of making gauge for setting molder knives. On plate 4, Nos. 1, 2 and 3 show the distance each of the cutters projects over the lips of the cutterheads on plate 2; 1, 2 and 3 at the bottom each space equals 1-in.—No. 1 for cutterhead No. 1, No. 2 for cutterhead No. 2, etc.

On plate 4, at J, is shown a distorted figure. You could not make perfect cutters by such a figure. Also, in Fig. 2, plate 4, in dividing up the lip projections, parts ending at the waved line indicate imperfect measurements, leaving spacing irregular, therefore measure with great care to get good results.

To successfully divide any minute fraction of an inch, take the inches and fractions on a base line, draw a perpendicular to base, and set off the desired space. In this case 1, 2 and 3 are each to be divided into eight equal parts. Place your triangle scale rule on left-hand base line, and move back to the perpendicular line until you have 8-in. Draw a fine line, divide into eight equal parts, and intersect; the development will be the desired result. Take the parts so obtained and lay off on a piece of wood or metal, as shown on plate 4. At top of plate, on right-hand end, are shown the parts for laying off knives for the projections, lengthwise, standard inches and fractions, for width of molding. You can subdivide to any part of an inch desired. If made of wood, stick a brad in right-hand end, hook over end of cutterhead, and so set your cutters.

On plate 6, Fig. 2, is one correct method of laying off a graduated scale, which meets about all demands for molder heads of all sizes, both for setting cutters and laying them out. A brief explanation will make this clearer. First, draw line E F, then line F B.

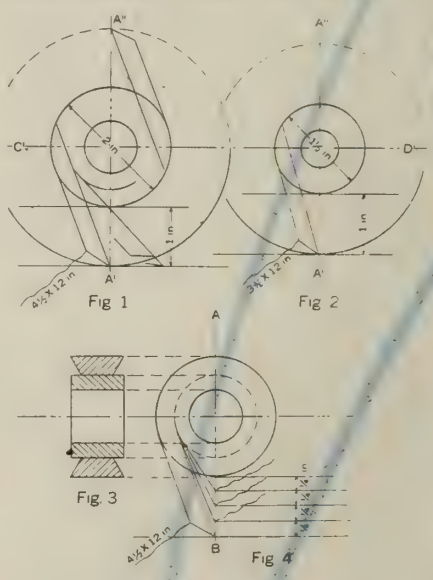


Plate 3

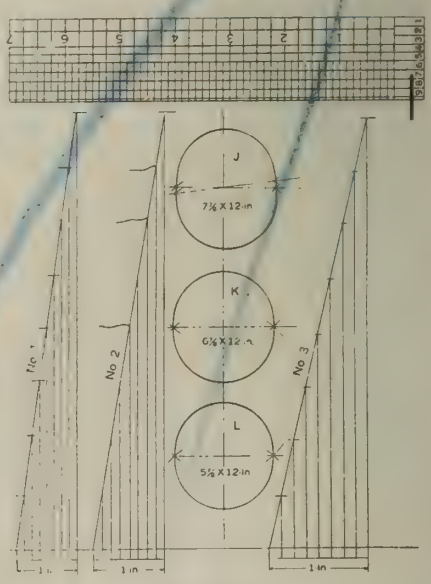


Plate 4

Then, at a point on line F B equal to the minimum and maximum—i. e., the sum of the base of Fig. 1 and Fig. 3, plate 4—draw a line parallel to line E F, on C D. Divide this line into sixteen equal parts. Then from the right angle over at C, on line C D, draw lines as indicated in Fig. 2, plate 6. First stick a fine needle at F. Push your rule against this needle and draw lines beginning at the right, so, if drawing in ink, you will not blot the lines. After having done this, take two needle-pointed drawing dividers, set one equal in space to one of the divisions in Fig. 1, plate 4, the other equal to one division of Fig. 3, plate 4. Lay a keen-edged triangle scale rule across these lines, as at X X, moving it in such position that at left-hand end the first space on the diagonal lines equals the space taken by your dividers from Fig. 1, plate 4, and the right-hand end equals the part taken from Fig. 3, plate 4. At each intersection of such lines draw lines

parallel to line F B, terminating at line A B. All the space indicated between the two arcs makes a complete and perfect graduated scale, which properly applies to cutterheads for molders of any size, providing the minimum and maximum sweep in these drawings are not exceeded. This rule is very accurate within itself; if the intersecting is perfectly done the development will be satisfactory.

Rule for Setting Shaper Knives.—On plate 6, Fig. 1, is shown a method by which shaper knives can be accurately set. It is evident by examination of Fig. 1 and Fig 2, plate 3, that different sized collars and different sweeps for shaper cutters all give different angles by which cutters are made, hence the different angles on Fig. 4, line A B, and Figs. 1 and 2, lines A″ A′, plate 3. The difference is small, but there just the same. For a handy gauge take a thin piece of wood or metal, like Fig. 1, plate 6. With fine-pointed dividers lay off, first, the outside diameter of collar. Next, inner line of groove for cutters. Then describe arcs from centre or axis of revolution, say by ¼-in., any reasonable number. Subdivide if desired. Draw two fine cut lines through centre at right angles, and on lines A, plate 6, open in centre, leaving Fig. 1. Raise collar until pattern or gauge presses under, first having removed section part in plate 6, then press snugly against collar. Bring cutter point at arc on line B C.

Laying Out Knives for Molders.—Take, for example, plate 1, Fig. 5, a full-sized detail molding. First draw a line above molding, as shown at Fig. 5, just touching its thickest part, line C D, any respectable distance parallel to and, say, 1-in. above. Draw another line, A B, at the extreme lowest and highest points on detail. Draw per-

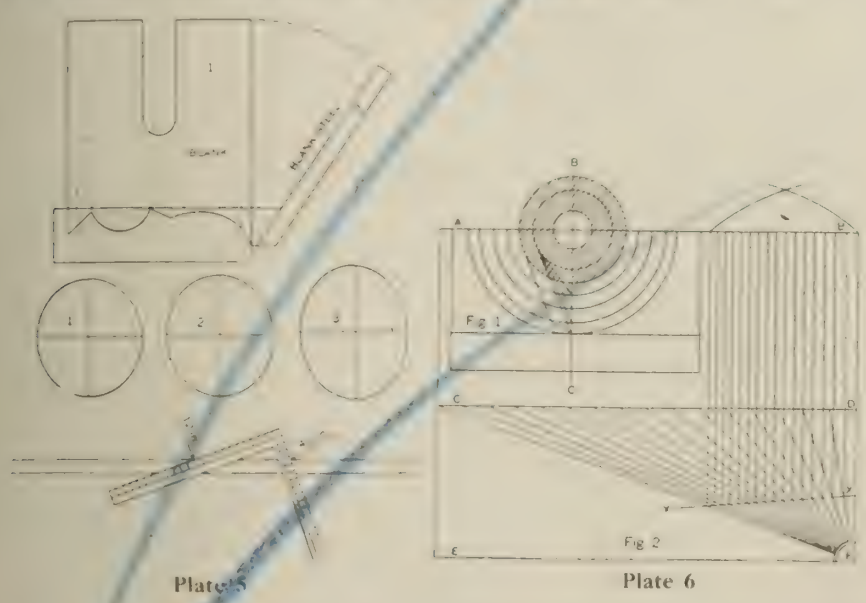


Plate 5

Plate 6

pendicular lines parallel to one another, terminating in line A B. Then with a standard rule measure the distance drawn on the various lines from line A B, noting each measurement, then use the measurements on the graduated scale for the distance down, locating the different spaces in width by the standard rule. Make a small dot at each measurement. Draw in curves free-hand, and all other parts by straightedge. It is well to draw intermediate lines, thus aiding greatly in drawing in free-hand from point to point.

I would suggest that if one wishes to make drawings for different sizes of quarter-round, coves, etc., he make them on firm, clean paper (of course, blueprints are better), and paste them between two pasteboard covers. When grinding cutters open up this book, lay it by your grinder, grind and fit your cutters, close your book, lay it away until wanted again.—The Wood-Worker.

Increasing Kiln Capacity

A large tight barrel manufacturing concern has recently evolved an idea which may be applicable to the hardwood and consuming trades. It is offered merely as a suggestion, and with the knowledge that there are some apparent weaknesses of the plan which practice may show to constitute insurmountable obstacles. The plan, in short, is to cut stock to size before, instead of after, kiln-drying, so that the process of drying may be hastened and the efficiency of the drier increased.

In the case referred to, the barrel man has found it rather inconvenient to put a lot of stock through the kiln and then after tying up his drying equipment with this material for a couple of weeks, to find that some of it has to be thrown out for use in another direction, because it is not of the proper grade for the job in hand; and also that by cutting to size and planing, a good deal is taken off so that the material actually used is much less in volume than that which occupied space in the dry-kilns. His idea is to dry the staves only after sorting, cutting and planing, in order to make the kiln do one hundred per cent. of work.

Some of the points which apply to the cooperage business do not affect the ordinary factory using lumber, nor the hardwood mill which does much cutting up. The main consideration—that of making the kiln-space more effective—is one worth going into, however, in view of the expense of operating a kiln, and the fact that steam costs money. Certainly there is no use in wasting drying efficiency if it can be profitably employed.

The obvious objection to the plan of cutting to dimensions before drying is that if any defect is caused by checking or splitting, the piece is ruined for that particular use. To meet this possibility by leaving sufficient margin would, in the first place, require the stock to be reworked, and thus do away with any advantage which had been gained; and in the second, would increase the proportion of waste, which, in most plants, is great enough as it is.

It appears, therefore, that if the plan is used, the material would have to be cut to the exact size required plus an allowance for shrinkage. In order to prevent losses through checking or cracking, more care would be required in drying. Perhaps this would not be such a bad thing after all, for it is certain that the operation of most dry-kilns is not attended by what might be called scientific exactness. Most users of lumber know about how long it takes to dry lumber only in an approximate way. Usually no exact figures are available, and of course allowance has to be made for the condition of the wood at the time it is put into the kiln.

If the possibility of loss were present, and the superintendent knew that his drying had to be done properly in order to prevent damage, it is likely that greater care would be used in determining the proper methods of drying, and in avoiding the harmful developments which at present mark much drying of lumber. Nobody wants to make the process any more difficult than it is, and it is therefore certain that if the drying of dimension stock were accompanied by extreme difficulty, this consideration alone would be sufficient to cause the plan to be rejected.

Undoubtedly, however, dressed stock dries more rapidly than rough lumber. Planing it, before preparing it for use in the factory, removes the surface which has gradually hardened because of air seasoning or from being kiln-dried at the mill, which makes drying a slow process. If the surface had been gone over before the final stay in the kiln, the warm air would get to all pores of the wood more rapidly, and the moisture would be driven out in a fraction of the time required under ordinary conditions. In the cooperage plant referred to, experiments have shown that the saving in time on this account amounts to fully one-third.

Right along the same line is the question of case-hardening. This is usually the result of partial drying previous to being placed in the dry-kiln. By reason of the first process, the portion of the wood near the surface had dried out, and the interior had remained as moist as before. Shoving it into the dry-kiln in this condition, especially if the operator is not conservative in the matter of temperature, has a tendency to complete the drying process, as far as the surface wood is concerned, leaving the remainder as unseasoned as before, and making results extremely unsatisfactory. There seems to be good reason to believe that if the lumber were dressed before being dried, and the surface so opened as to make access to the pores of the wood certain, the chances of honey-combing or case-hardening would be greatly lessened.

There is a wood-worker in an Ohio Valley city who uses beech. Everybody who has ever handled this material knows how hard it is to dry. In this case especially thick stock is used, and the manufacturer was wont to fill the atmosphere with sulphuric exhalations because he was tied up more frequently than he would have liked by reason of slow drying of his material. It may be mentioned incidentally that his kiln was a little weak in construction, though that is not the point. The problem of getting that beech into shape in quicker time was discussed many times by the manufacturer and his assistant, and no one seemed to be able to get farther than the suggestion that a new kiln be installed. This did not appear to be practicable, as far as the manufacturer was concerned, so they had to find the answer at the other end of the proposition.

Finally a lumberman who had had experience with beech suggested that it be worked first and then dried. This, he pointed out, would expose fresh surfaces for the percolation of the heat, while the fact that it dried slowly anyway made the danger of splitting less prominent than it might have been with other woods or thinner stock. The idea was seized with the eagerness with which the proverbial drowning man catches a straw. It was tried, and has succeeded. The manufacturer unloads his lumber from the car right into the factory, as he usually buys it for immediate use, and rips and saws it to the exact sizes required by the line of goods he is putting out. Then, at first with fear and trembling, and later with more confidence, he puts it into his dry-kiln.

The latter is rather old and leaky, and consequently the temperature is never excessive. The drying process is as slow, comparatively, as the most extreme might require. The consequence is that there has been little trouble experienced from damaged stock due to too rapid drying, and when the material has been in the kiln the

proper length of time, which is of course much less than when it is dried without having been dressed previously, it is ready to be finished and to go into place in the goods. In few cases has it failed to give satisfaction.

Absolute loss in case of checking in the kiln would be suffered only in the case of small sizes, which could not be reworked into something else; the larger pieces could be cut down to the smaller dimensions used and thus the loss held to a minimum. But of course if experience suggested that there would be a good deal of splitting or checking, it would not be wise to attempt the plan.

There are some consumers of lumber who carry no stocks on their yards whatever. The tendency to leave the seasoning of the stock to the lumberman, and to trust to the dry-kiln to cure whatever defects of this kind are still in evidence, is growing, and will continue to exist as long as the consumer can get his lumber with reasonable facility when he is in the market for it. The fact that the smaller furniture factory, especially, dislikes to tie up much capital in lumber, and buys for immediate consumption, means, again, that greater reliance is placed on the dry-kiln than in the past. This suggests two things: That the maximum efficiency is required of the kiln, and that the greatest possible care be given to the stock which goes into the drier.

These two conditions seem to be met by the method of putting the stock through the first stages of manufacture, at least, before drying. The manufacturer who is in a hurry to use his stock can thus do part of the work on the lumber without waiting for the over-burdened dry-kiln to get it in condition; and the latter can get stock through and ready for finishing so much more rapidly that an appreciably larger amount of lumber would be handled. Since the consumer referred to does no air-drying of his own, he must use his kiln properly if he is not to spoil his lumber; so that the accurate methods required where dressed stock is dried would fit well into the demands of the situation.

Allowance would have to be made in drying for the shrinkage caused from this process; but as this is known pretty accurately, there would not be such difficulty here as sanding would not take care of. As stated, the general idea looks as if it had possibilities, and the only question is whether the practical difficulties in the way of its adoption are not too great. The plan is at all events worth considering.—Hardwood Record.

A False Ideal

A panel manufacturer who has done a good deal of missionary work among the piano trade, and who has found that those in that line in most cases are less responsive than others to the arguments which are made in favor of having glued-up stock manufactured outside the factory by a specialist in that branch, has come to an interesting conclusion regarding the reasons for this attitude.

It is that the manufacturers—that is, some of them—don't want to save money in the production of their goods.

That probably sounds peculiar to the average lumberman and panel manufacturer, but the logic of the situation is in favor of the member of the trade referred to. He has the facts.

He visited a piano manufacturer some time ago and talked to him with the idea of selling him some built-up stock. This particular factory, by the way, turns out a well-known instrument, and one which sells for a considerably higher price than the average.

"No," was the imperturable response to all arguments of the panel man along the line of getting better results, eliminating the possibility of loss through imperfect work in his own shop, convenience in operation through the reduction in equipment and labor expense for operating the glue-room, and all other effective appeals which have resulted in the panel industry making great headway among consumers of veneers. "No, we lay all our own veneers. We are not interested in what you have to say. We don't intend to change our methods, which we have been using for many years. We are successful, and we see no reason for altering a winning combination."

Those were not the exact words of the piano expert, but that was the general tenor of his remarks. He made it perfectly plain to the panel man that the latter couldn't get any business there if he offered to sell his goods at cost, less a five per cent. discount for cash.

A little later on, the same panel man—who seems to be a pretty lively traveller, something on the order of the chief executive of the U. S. A.—was in another plant, where the general manager is a man of ideas and ability. He is in charge of a comparatively new property, and is marketing a piano that is not nearly so well known as many of its competitors. Consequently he is not overlooking any chances to cut down producing costs, so as to be able to sell his product at a comparatively low price, and also to enable a sufficient margin to be made to provide funds for aggressive sales and advertising efforts.

This plant is equipped with a lot of modern devices which are particularly advantageous in saving labor. All holes are bored by electrically operated drills, screws being driven in the same manner. As there is a lot of work of this kind on a piano, the factory turns out its quota with a much smaller number of men than is required to manufacture the same quantity of goods in the other factory.

It so happens that these two plants are connected financially, the same interest controlling the stock of both concerns. It was in this connection that the head of the older house, whose ideas on the subject were referred to above, visited the veneer plant, which is run by the young, aggressive manager who likes to save money where he can by the adoption of better methods and the elimination of needless labor.

He looked over the equipment and watched the men boring holes and driving screws rapidly and efficiently with the aid of electrically driven appliances. He seemed interested, but not particularly impressed, although in his own plant those operations are being done by hand, just as they were done when the first piano built in the factory was turned out.

Finally he said, in an effort to show proper appreciation, "Oh, that's all very well for you; but of course we don't need to do that in our plant."

Do you get it?

What the piano man meant was that his margin of profit on his well-known, well-liked instrument, backed by the accumulated goodwill of several generations of use was so great that it was not necessary or even desirable that such picayunish economies as saving a few dollars per instrument in the matter of labor be striven for. Probably, if he had elucidated the idea, he would have taken the ground that it would be undignified to go to all that trouble in the case of his beloved product, and that the factory which was compelled to descend so far from artistic ideals evidently had little to offer in the way of a musical instrument that would appeal to the souls of real lovers of art.

That, of course, made it plain why he did not care to have any panel work done on the outside, even though to do so would result in getting better work and in saving some money. He really preferred to do the work by the most laborious process imaginable, as though this adherence to the standards of those who had started the business necessarily meant that the quality which they had put into the piano would be manifest. Such reasoning, of course, does not stand analysis, but it exists in spite of its lack of logic, because those who believe in such ideas have back of them years of unbroken success and financial prosperity. Their answer is irrefutable, for it is based on a plethoric bank account which has resulted from their methods of operating the business.

However, to hark back to the factory where the new idea is not rejected merely because it happens to be new, the general manager is buying some glued-up work and is pleased with it. Close calculation has shown that he will be able to increase his output, with the same investment, to a considerable extent by buying more of his veneered work from those who devote their time and energy to its production. Therefore, it is safe to assume that he will continue to increase his purchases from the panel man who has been serving him, and will ultimately have most of his work of that character produced outside his own factory.

But the other man—no chance. He'll go on using up as much time as possible, just as long as the public will continue to pay the fat prices he charges them for it. It has quality and class, without question; but not because of the antiquated methods which are used in its manufacture.—Hardwood Record.

Will Study Wood-working Industry

In the course of a few weeks thes Forestry Branch of the Department of the Interior will conduct a study of the wood-working industries of the Maritime Provinces, in which all manufacturers of wood products will be asked to co-operate.

It is intended that the investigation shall cover merely that field of products which undergo no further change after leaving the factory. Hence lumber manufacturers will not be included.

Blank forms will be sent out which, when filled in and returned to the Department, will be carefully compiled with a view to giving the public an accurate idea of the extent and nature of the wood-using industries of the eastern provinces. Further, it is not unlikely that, taken in connection with the researches which the experts of the Department are making, some savings can be effected in the choice and methods of utilization of several of the less costly species of wood.

Placing Pulleys for Quarter-turn Belts

I have just had a long argument with a filer who was also much of a millwright, according to his own statements. The question was over the placing of pulleys for the quarter-turn belts in the mill. We have quite a number of them.

His claim was that the center of the driving pulley should be

directly over the center of the driven pulley, on the theory that the belt would follow the center of the pulley.

My plan is to place the pulleys so that the face of the driver is in line with the near edge of the driven, in which position the driven pulley is the full width of the belt in advance of the face of the driver. The driven pulley is placed in the same delative position to the driver, as the belt, in making the quarter-turn, advances its full width, and does not draw under the line of the face of the driver in making the turn.

As I had all the belts in the mill to place, I put the pulleys on according to this scheme, and let him try his plan on the one quarter-turn belt he had in the file room. All of my belts tracked right. The one he put on ran promptly off the edge of the pulley as soon as he started up.

Placing these quarter-turns is a simple affair if the rule is followed as here laid down, but if you try the rule of centers you are sure to have some moving to do before the belts will track to their proper positions.—A. H. H., in Wood Craft.

Care of the Band Resawing Machine

By Hapsburg Liebe

The care of the band resawing machine is the life of the band resawing machine—as well as a great part of its success. No matter what make or style, or size of machine one is using, if the shafts, the guides or the rolls are not in line, one cannot reasonably expect good work. Each of the little properties contribute a certain quota toward the sawing, and none of them should be overlooked.

The dust from the resaw is necessarily fine, and therefore prone to fly in the air; and the result is that the working parts of the machine are easily and quickly clogged, even when the machine has the very minimum of complication in its parts. If the oil-holes become filled, naturally the bearings suffer in consequence; there is a laziness about the adjustments, a stiffness, for lack of proper care in the lubrication. Which is to say that the machine should not be permitted to don a permanent garment of dust.

How many operators, after having levelled the lower shaft and placed the upper in line with it, line up the guide with the saw? If the guide was at a proper place before, it cannot be right after moving the position of the upper or lower wheel. The result will be that the guide bears hard on one side of the blade when it is up and the opposite when it is down. This will account for the tendency of many machines to saw the upper edge of a wide board to one side of the middle. And in lining up the guide, it should be remembered, it is the slide upon which the guide arm runs that should have attention. This is a thing that has caused heaps of bad swearwords to be directed at a poor dumb assemblage of good iron and steel that was entirely innocent of any blame.

That the machine proper should be set level and on a perfectly solid foundation is a thing that will bear the saying over and over. The lower shaft should be level, too, of course. And it should be watched; if the pull of the belt is upward, this, together with the strain of the saw, will tend to wear the bearings fast, and thus put the shaft out of level sooner than most operators would think. This is the cause of the saw's tendency to gradually run out farther off the edge of the lower than the upper wheel, a condition that has now and then puzzled inexperienced men. A saw running on wheels so out of alignment will be somewhat looser on the front, and therefore capable of taking less feed than it should take. Keep the lower shaft level; keep the upper shaft in line with it and tilt to suit the crown of the saw.

Certain types of wheels will catch dust, which becomes caked with oil, sufficiently to throw the wheel out of balance. If it is the upper wheel, the regular jump of the tension lever will cause a jar of both floor and machine, the lower wheel being more rigid and closer confined. This is very hard on both machine and saw, causing vibration, and often cracks, in the latter.

The feeding of the band resawing machine is a matter of no small importance. The feeder may cause the condition known commonly as bull-heading on the front end of the board, and it is more apt to occur on a good machine than a poor one. To explain this; If there is a few seconds of time between the going of one board and the coming of another, the saw, being relieved of the cutting strain, relaxes, and while the tension lever is swinging as the result of the sudden relaxation the strain is unsettled and insufficient at the time the front end of the next board meets the saw. While the saw is weakened it may dodge slightly before it finds its place. The more sensitive the straining device, the easier it will be for the lever to bob. Which is to say that boards going through the band resaw should go with ends touching, else there should be more than a few seconds between them; I advocate the former, which must keep a regular and constant strain, in effect that of one endless board.

One great trouble with the band resaw, especially in resinous woods, is the readiness with which dust collects on the faces of the wheels, a condition that works havoc with the best machine and the best of saw-fitting. I have seen, in extreme cases, so much gum pasted to the wheels that the blade was actually crowded against the outside guides. The greater percentage of this foreign substance being on the front edge, of course the saw was turned out of line with the rolls. Taboo the old remedy of a stiff brush; apply scrapers of your own devising, and touch the wheels now and then with a swab dipped in kerosene. Band-saw plate makes a good scraper, with the temper taken out. Arrange it so that it bears lightly but firmly and from a sharp slant. When the edge of the scraper has worn down to fit the wheel face, it will keep itself sharpened, and rarely fail to keep away all gum, with the assistance of a little kerosene.

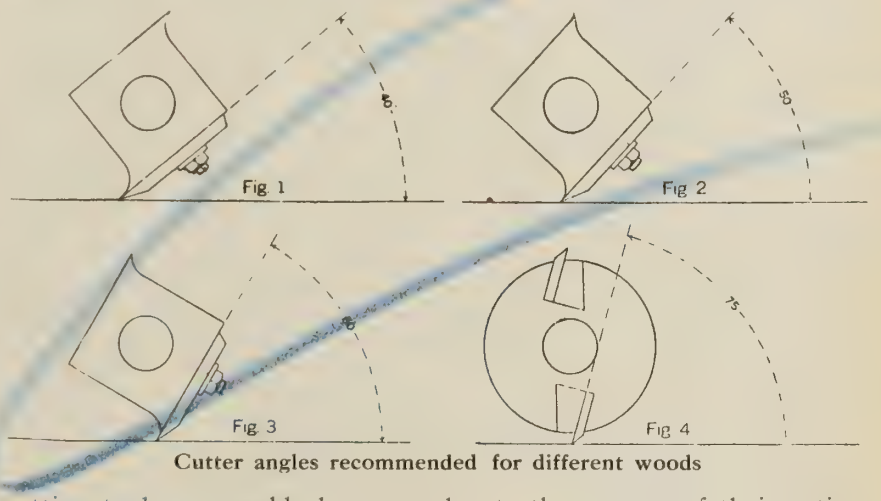
Too much strain is an evil that leads to a multitude of troubles. It will heat the bearings in most cases; it will tend to crack the saws; it will keep the tension pulled out. Steel is elastic, and if the blade is under a strain so heavy that the central part of the blade is tight, then the purpose of tension is defeated by tension itself.

If buyers of band resawing machines would only pause to sum up and investigate the features of them, there would be less kicking afterward. Two-thirds of the machines in use to-day carry saws several feet too long for the work in hand, notwithstanding the fact that the shorter the saw the more taut it will be and therefore, the more capable of taking a great feed—to say nothing of the needless length of blade to buy and care for. There are other machines whose feeding apparatus is complicated and apt to stick. Still other machines have tension arrangements that are little short of the jack-screw order. Add to simplicity, shortness and solidity a sensitive tension device, and you have a real, man's size machine.—Berlin Quality.

Angles of Woodworking Machine Cutters

By A. B. Riley

The views given out on this subject and the examples shown are not based upon theoretical inference so much as upon practical experiments. There are some very obscure conditions connected with the action of wood-cutters. If they moved as slowly as metal-cutting tools, we could observe and note the process of their action, but when in motion they are practically invisible, and nothing can be determined except by comparative experiments.



Cutter angles recommended for different woods

The object among woodworkers seems to be to get as low or acute an angle as possible, regardless of the particular uses to which they are applied, then to prevent slivering, or pulling out the wood, by means of caps. There are, of course, exceptions to the rule, especially with small cutter-heads, as in the case of shaping machines, but exceptions are generally necessary from the construction of the cutter-head rather than the result of any plans that have reference to the work.

It is best not to employ caps on the knives of power machines; they are expensive, inefficient to perform the intended purpose, and are unnecessary if proper attention is paid to the angle of the knives. Any kind of wood, including boxwood, rosewood, softwood or greenwood of all descriptions, can be worked without caps, or chipbreakers, as they are sometimes called, by giving the edges a proper angle and attending to other conditions to be noted.

In planing veneers by hand it has long been demonstrated that the plane iron requires a much lighter angle than for other work. It is also known that scraping tools with blunt edges are the only tools that can be used in turning hardwoods or ivory. In fact, with all hand tools the principle of varying angles adapted to the work seems to be well known and generally applied, but when we come to power tools, planing and moulding machines are made with their knives at a constant angle, usually as acute as possible.

In determining the angle of cutters the following propositions are laid down:—First, in cutting clean pine for surfacing, matching or moulding, the angle of the cutters can be as low as practicable to clear the holding bolts. Second, an acute angle requires a thin

edge, and a thin edge cannot at the same time be a hard one, nor, for that reason, a sharp one, except in working soft, clean lumber. Third, an edge may be hard, and kept sharp, as the angle is obtuse and the bevel short. Fourth, in cutting thin shavings the operation is altogether cross-cutting, and a sharp edge is more important than a thin one. Fifth, as the angle of cutters becomes more obtuse, the shape of the edge approaches nearer to having the same profile as the work, and the cutters for moulded forms are cheaper and more easily made and kept in order.

From these propositions we can take the following rules, which are recommended to those who have occasion to determine the angle and bevel of wood-cutters:—For planing softwood the angle of Fig. 1, of 40 deg., is suitable. For mixed work, partly soft and partly hard wood, the angle at Fig. 2 is preferable; it seems the result is not very good with hard and soft wood. For working hardwood alone, such as oak, birch, ash, walnut or cherry, the angle Fig. 3 is best. For the hardest varieties, such as boxwood, rosewood, banyan, cocoa and ebony, working crotch or cross-grained wood, or at an angle against the grain, the cutters should be set as in Fig. 4.

It is becoming of late years a common thing to grind a short bevel on the under side of knives for working hard or cross-grained stock, which is substantially the same thing as changing the angle of the cutters and making the bevel shorter. It is an excellent plan, as it would be impossible to change the cylinders when the machine has a variety of work to do, but by having some extra knives ground at different bevels it becomes an easy matter to change them. This will pay well for the trouble, especially if the knives are tempered harder as the bevel becomes more obtuse.

It will be found in practice that a set of knives, hardened to a very pale-straw color, and with bevel ground on the face side (just enough to keep the edge from breaking out), will run long and do smooth work on walnut, birch, ash or oak, and will not pull out the stuff where it is knotty or cross-grained.

It has also become a common practice in some parts of the country to turn the matcher cutters of flooring machines upside down —that is, to turn the grinding bevel to the wood. This is an effort in the same direction—a slow change from the necessities of practice instead of from inference, as it might be. This way of getting an obtuse angle is going a little farther than is recommended here, but to divide the bevels by grinding on both sides will be found an advantage in matching hardwood, including yellow pine.

The plan is an old one. The Knowles matching heads, introduced about 1850, had this feature fully carried out by having the bevel on the inside of the cutters. They were always considered as being capable of working any kind of lumber without tearing, and without clips or pressure pads, yet for some reason the plan was not carried out in common practice, probably from being too expensive.

We will notice one more fact bearing on this matter, that of machines for making wave mouldings. Such mouldings are cut smooth and in part at an acute angle against the grain, and still are not torn or spoiled in working. The whole secret of their manufacture, often a matter of curiosity, is nothing more than to set the cutters at right angles to the face of the moulding. The feed movement is given to the wood and the reciprocating motion to the cutters, which act as scrapers.—The Woodworker.

Specific vs. General Quotations

A furniture manufacturer was laughingly discussing the letters which he receives from lumbermen who have stock to offer.

"They are all so nearly alike," he said, "that unless I pay close attention to the letter-heads and the signatures, I am likely to assume that they are all from the same person.

"I am constantly informed that lumber is being offered which consists of dry stock of good lengths and widths, and that the grades are all right. Inasmuch as everybody tells me this, how am I to determine which is the best lumber? As a matter of fact I am not able to do so, and a letter of this kind doesn't interest me at all. I am looking for specific facts, not generalities, and there is no reason why I should buy lumber without knowing what the description of the stock being offered me is than I should order a suit of clothes without examining the pattern or finding out something about the design which is to be used in making up the suit."

The art of letter writing used to consist of the ability to string pretty phrases together, and make a dissentation on the weather or the condition of the spring crops sound like one of Lamb's essays. Letters in the good old days were not supposed to sell goods. Now, however, the letter-writer who commands the most praise—and salary—must be more than an artful composer. He must not only be able to use words to the best advantage, but must weave enough facts into his epistles to enable the man at the other end of the line to visualize the goods which he is offering.

These are at least the principles which apply to letter-writing when selling every other class of goods in the country, and there is no good reason why they should not be true of lumber. Lumber is frequently sold by mail to consumers, at the expense of the retail dealer, who wonders how it is done and insists that it is because of some slight-of-hand or underground methods which will not stand the light of day. Probably, however, mail-order concerns which flourish on their lumber trade manage to sell because they are able to dsecribe their goods as attractively as though they talking about grand pianos, books or motor-boats, and consequently get the interest and attention of the man who is in the market for lumber. The yardman in the town of the consumer can't tell his prospect much about the stock, except that he will agree to deliver so many thousand feet of a certain grade. Naturally the better description wins, even though it is a long-distance effort, prices and other factors being equal.

A lumber salesman, working on commission for a sawmill down South, used to get in touch with possible customers in the market where he was located over the telephone. There may have been occasions when he varied his methods of offering stock, but they were not many. Usually his appeal for business was something like this:

"I've got a mighty fine car of plain oak ready for shipment, and if you can use it, I'll make the price right. It's dry as a bone, and has good, wide stock in it. This is good stuff," etc., etc.

The fault of the solicitation was that the salesman did not know anything about the lumber he was trying to sell. Consequently he was not able to give the customer a particularly clear impression of it, except that it was lumber of a certain kind and grade. Besides, the temptation was constantly present to very the description to suit the needs of the consumer, and if the latter wanted a certain percentage of long stock, or required the lumber to be six or eight months from the saw, he immediately gave assurances that such was the case. Then, if he had quoted a low enough price, the order was sent in, and probably he had to settle a kick a little later in case the description of the lumber delivered failed to tally exactly with that which he had given verbally. That there should be a coincidence in these descriptions would be a coincidence of circumstances and not the result of premeditation.

Many lumbermen argue that it is impossible to describe lumber exactly, and that the salesman who tried to describe the stock he was selling, as far as lengths, widths and age are concerned, would not only attempt the impossible, but would embarrass his employer. They take the ground that in most cases the information is not at hand, especially if a wholesale business is being done and lumber is coming in from a large number of mills and moving out in quantity every day. They state further that it is not practicable to try to give data which can only be secured by an extremely laborious compilation of facts from the tally-sheets.

It may be that this is the case; yet, with the point so clear that lack of identity is what hampers lumber, sales, and that giving offerings of lumber individuality by descriptions based on the actual qualifications of the stock would help to move it in cases where ordinary methods fail to get results, there seems to be room for the operator who will go to the trouble of digging up those facts and supplying them to his salesmen so that they in turn can offer their customers not merely lumber, but certain lumber.

The average buyer is not in the market for merely lumber. He has certain definite needs, and unless he is making a wide variety of goods and therefore requiring numerous dimensions, he prefers to have his stock run according to given widths and lengths, just as he wants it to run according to agreed grades and thicknesses. If one lumberman agrees to deliver a car of lumber containing thirty per cent. of 12-foot boards, and twenty-five per cent. 10 inches or over in width, whereas another offering has no statement as to the percentage of wide and long stock, it is a practical certainty that if his requirements run in that direction, the purchaser will buy the first named car.

A prominent hardwood man said: "I have got expressions from customers which prove to me that the biggest mistake made is to write a letter which is intended to sell lumber, and then fill it with stock phrases, general statements and improbable claims as to the character of the stock, when you know that the prospective buyer is trying to find out the exact description of the lumber. If I can't tell all about it, I tell as much as I know; and that goes a long way in getting the attention of the buyer, who is likely, otherwise, to toss your carefully framed epistle into the wastebasket with no more compunction that you would a circular from a concern that is trying to sell you a piece of machinery without telling you what it will do, how much it will cost or why you should install it in your mill."

Another consideration in this connection is that the efficiency of salesmen can be greatly increased if sales letters are properly used. Most of the time the travelling man solicits customers without knowing whether or not they are in the market or are likely to be. He simply "makes the rounds" and picks up whatever inquiries he happens to run across. His calls are limited in number, of course, and

inasmuch as a large proportion of those seen are not buying, the number of people solicited who are actually ready to purchase is extremely small.

If selling efforts were extended in the direction of letters telling what the firm had to offer, and advising that if the customer were interested a salesman would call with a complete description of the lumber, it is probable that the elusive inquiry could be cornered and the time of the salesman put into much better advantage than under present conditions, with the latter "shooting at the moon" most of the time in his quest for business.

It would mean a little more careful cultivation and a little more intensive effort, but according to the scientific farmers that is the kind of system which makes crops increase.—Hardwood Record.

Good and Bad Saw Mill Plants

By E. M. L. in the Wood-Worker

Among the many sawmill plants that I have seen, and at a few of which I have had the honor of holding positions, I have met with some of the poorest arranged plants imaginable, as well as a few that were so arranged that everything was handy and convenient. To illustrate more fully just what I am trying to tell, I have drawn Figs. 1 and 2.

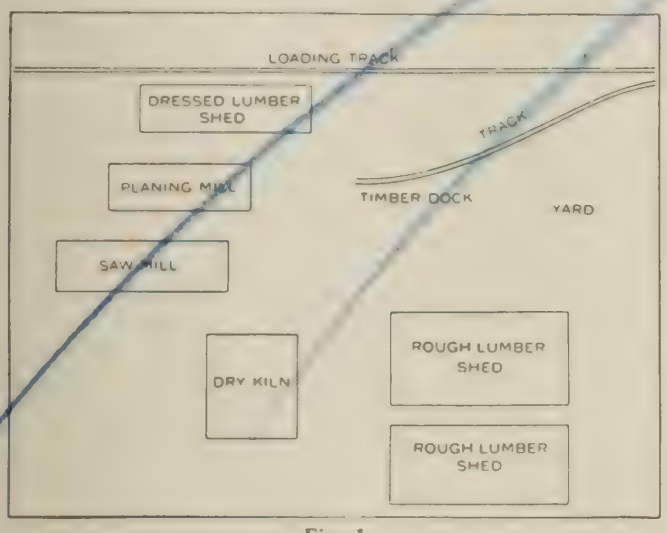


Fig. 1

The plant that I consider a perfect model of inconvenience and left-handedness was located in Louisiana, but was burned down a few years ago, so it matters not just where it was located. However, it was an eyesore to me for nearly six years, as I had charge of the shipping department and so came in close touch with every bad feature. Fig. 1 gives an idea of the general arrangement of sawmill, planer, dry kilns and sheds. In Fig. 2 will be seen a much better arrangement and similar to a few plants I know of.

It will be noticed that with the plant arranged like Fig. 1 the lumber gets farther away all the time from the planing mill, making

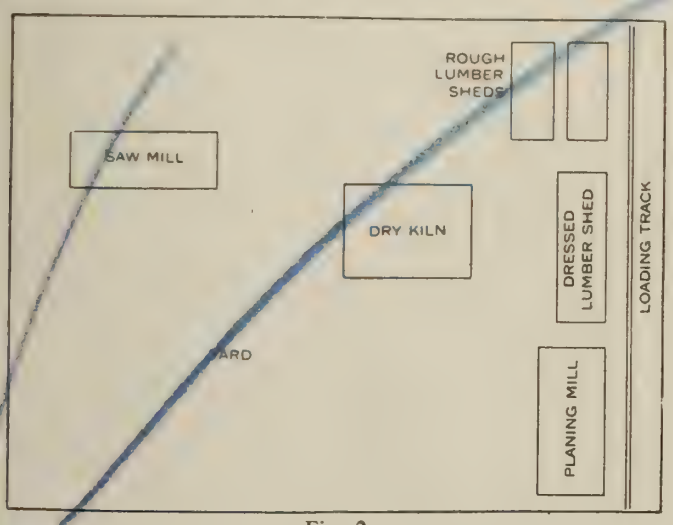


Fig. 2

it harder to log the planer—in fact, increasing the expense of handling to the planer. With a mill plant like Fig. 2 the lumber starts toward the planer and loading track from the sawmill, making a short haul, quick delivery and economical handling from sawmill to car.

And not only can one notice this bad arrangement in the general plant, but it is very frequently seen in the installing of the machinery in both saw and planing mills. I have one mill in mind that was first planned for a single band, then a resaw was added later on. This, of course, jumbled up things some; then, a little later, a "Dixie" circular was added on towards the back end of mill. This made the band a right-hand and the circular a left-hand, causing a congested condition a good deal of the time in getting the lumber across to the edger. It cost about double to manufacture lumber under such conditions. My experience has been that the least machinery one can get along with, and have it labor-saving, the more economical it will be.

Speaking of saw-milling in general, I have observed that not every plant is managed with the skill that is acquired from an intimate and personal contact with the work in hand. The best superintendents and managers are those who know from actual experience all along the line, from stump to consumer. A case in point: A company had a filer for three years, and thought he was a crackerjack until he quit and a new filer came. When the new man got things lined up, the saws quit cracking and making snakey lumber, the cut increased, and the load was taken off the engine because the saws had more hook and throat put in them.

It seems to me the best way for holders of large tracts of timber, who are figuring to manufacture same, to escape having an ill-arranged plant, is not to put in as manager a man with no qualifications as a lumberman or any idea of convenience, but simply because he has a pull or is a relative. I have known these reasons to hatch out just the money-losers I have illustrated.

Then, again, I have seen a few plants that had insufficient boiler capacity, or else the boiler settings were defective. One plant, where three large boilers were installed, had about 100 horse power over the engine capacity, but could not hold steam. For a year it went on that way, till finally the engineer persuaded the manager to let him raise the grates about a foot and slope back the bridgewall, which was about 2 ft. perpendicular from the grates. This allowed a draft to pass over the fire and took away the dead-air chamber at the bridgewalls. Then there was no more trouble about steam.

Another plant has three boilers and one smokestack. They use hollow-blast grates, and at times it almost smokes the fireman out, there is so much back-draft through the doors. There has been the price of several smokestacks lost by shutting down for steam.

It certainly takes a broad-minded man to fill the manager's position, and be able to meet the many problems in mechanics, manufacturing, and to know when he has the right man in charge of a department.

Important Points for Sawmill Managers

Lake Jolly, N.S.

Editor Canada Lumberman:

After reading the article entitled "Leaks in the Sawmill" in the Canada Lumberman of June 1st I felt that the writer had pointed out many of the most serious difficulties in the running of a sawmill. May I be allowed to express some of my own ideas on a few of the important points to be watched?

It is easy to imagine that we can make money with a sawmill if we go in and see a mill cutting lumber. We can find how much it is putting out each day, count the men employed, make a guess at the amount of wages and the supposed amount of other expenses, strike off the total from the daily earning and find just what we are looking for, a good day's pay. If we ran a mill for a short time we would perhaps be able to save some money. My own experience has been to find so many ways for money to escape, and what might be called small strings pulling back, that we must be careful to look for every possible means of effecting a saving and to make the best of all opportunities.

In the first place get a good outfit; the boiler or boilers from the best builders, and know that they are easy to fire and good to steam, with ample heating surface. Have the connection to the engine as short as possible and well put together.

See that the engine is calculated with surplus power as the load is ever increasing. The frame should be well proportioned and strong, the working parts of good metal and what you would call heavy. Have the bearings long and a good oiling device. The belts must be strong enough to not pull out till they are no good. My choice is Balata as it is tight and strong. Get a good mill with each piece well put in and be sure that it will run cool. See that it is straight so that the belts will not hang on one side, or run off.

Have a good man to keep things in order, a sawyer who will keep the saw cutting, and place the log to get the most out of it with the least cuts, or the least number of boards. Then the edger man and trimmer must not waste. The yard man must not leave the lumber to spoil or be broken by teams.

Save all that is sawed. The poor stock will be worth something. Put it on the market in the best possible shape. If the business pays too well give the help a bit more. T.H.W.

According to estimates of the Northern Pine Manufacturers' Association, the timber cut in Minnesota for the year 1912 will total two billion feet. This includes all the hard and soft woods.

CAMP DEPARTMENT

Intelligent Log Purchase

By H. B. Scale*

This subject at the present stage of the veneer business, is one demanding a great deal of thought and careful study. In attempting to treat this subject intelligently I hardly know which is of the most importance, the adoption of a comprehensive, simple cost accounting system, or the intelligent purchase of our raw material, for by the use of a good cost accounting system I believe all veneer manufacturers would soon revert to more careful purchase of the raw material.

It seems to me the vital point in our purchase of raw material, which we should ever have before us, is that our raw material is very unlike that of other businesses, in that it is not being refined or becoming better by careful processes of cultivation or manufacture, but on the contrary is becoming poorer by a gradual reduction of our forest area. We are all no doubt going back to timber tracts and taking trees that we would have left for firewood five, ten or twenty years ago. The result is that either our percentage of flitches or veneer wood from logs, on the average, is decreasing very rapidly, or the quality of our product is decreasing. This not only applies to quartered white oak but to all of our domestic hardwoods. White oak trees suitable for veneer purposes are, generally speaking, a very small percentage of our native forest growth, and as the forests become less dense, the quality will necessarily become less suitable, in accordance with the standard of quality of the present time. The rate of growth of a tree in an open stand is more rapid diametrically than in a close stand and the tree is more apt to be limby. It is, hence, less desirable.

With these few points before us, and the very important point of the difficulty of raising prices on our veneer staring us in the face, would it not be well for every manufacturer of veneer to base well his standard of value when working up the timber buyer's estimate for a price on trees? We all know by long bitter years of experience that logs above the first or second cut of a tree, depending, of course, on the length and size of the tree, density of the forest, etc., are not as valuable as the wood closer to the ground, and though they may be smooth bodied are nevertheless defective. Therefore the price on the upper cuts should not be that of the butt or second cuts, for they are nothing other than lumber logs, and their product will bring only lumber prices. We are all familiar with our cost of manufacture, but how many of us know just what the cost of our raw material is, when it is ready to cut into veneer? I refer now primarily to those of us who manufacture from the trees. For those reasons a standard base price for the different cuts of the tree, established by the experience we have had in the past, will go a long way toward eliminating vicious competition for timber.

Recently I had an experience that you all no doubt have had many times, which impressed me very deeply. The wood was white oak. The trees were estimated by several timber buyers to have 105,000 feet of good logs running from 20 to 40 inches, mostly 24 to 30, for which the party who purchased them paid $8,000, which price the party who sold them admitted to one of our timber buyers was $1,000 higher than the next highest bidder, and a man who had offered $7,000 had a mill within ten or fifteen miles of the trees, whereas the purchaser was said to be a Chicago veneer man who was to ship the logs to a sawmill, then reship the flitches to his veneer factory. For my part I can't see how he can do anything but lose money on that deal, and even should he get his money back, would he have paid that amount of money for that little bunch of timber if he had based his price on experience?

The day of guessing what the other fellow is going to bid and then adding a liberal amount so as to be sure to be above the other fellow, should be banished into the past.

In the matter of flitches, we have eliminated the vast source of chance from our buying to a large extent, and we are not so near to buying a "pig in a poke." The quality, texture of wood and figure are largely laid bare for our inspection, but here, too, an intelligent basis will help to make our business profitable. I am of the opinion that the best basis for prices on flitches is that fixed by actual width and not that based on averages. By this I mean so much for each width or range of widths, such as 6 to 7½, 8 to 9½, 10 to 11½, etc., depending on the prices we can obtain for our product.

I said at the beginning of this paper that business is good, but shall not we all now profit by former experiences? For instance, the demand for poplar panels some two or three years ago by the automobile trade, of which wood this trade uses very little to-day, advanced the price of poplar in the tree from a reasonably moderate price to an abnormal price which has not decreased since to anything like what it should have, price of veneers and lumber of that wood taken into account. We should not allow the farmer, who is without organization or even a price list, to force us to butt our heads against one another and pay him prices for timber that neither the price of our product nor necessity demands.

*Paper read before the National Veneer and Panel Manufacturers' Association.

Sanitation in Camps

By W. R. Hume

It is most gratifying to notice the increased interest that the subject of sanitation is receiving and has received of late, especially as adapted to communities which must work out their own rules of healthful living. In most villages, towns and cities, there are established boards of health who either give their time or are compensated for it and whose duties are to make regulations and see to the enforcement of them, to the end that these communities shall be protected against the ravages of disease or to take means to control it should it once gain a foothold. Of these health officials much is expected and demanded for they are men who have been scientifically trained along the line of prevention and control of disease. But when we come to handling the camp situation we find a different set of conditions. One would hardly expect to go out in the woods in a logging camp and find laboratories fitted up and equipped for work which comes under the head of medical science; nor would it be practical to establish such an institution, for the rules of sanitation have been well worked out, and if the desire on the part of those in control is to apply them, the only thing necessary to do is to point out the way in which they may be applied economically and efficiently.

This subject deals with the laws of health and the rules for hygienic living and is worthy of the deepest consideration from both an economic and humanitarian standpoint; and efficient action upon the principles involved means much to both employer and employee in health and comfort.

It is well known that many of the diseases ordinarily encountered, and especially those which might be a source of danger to a community living as people must in camps, are produced by minute organisms of microscopic dimensions which are capable of being transferred from one person to another and producing the same condition in the one to whom it is transferred as in the one from whom it came. These small organisms multiply with remarkable rapidity and in a very short time a large number of persons may become infected from the one source. And so it is that these organisms become potent factors in the life and health of communities, be they large or small.

Knowing then, that we are in constant danger of being invaded by these bacteria through the medium of air, water supply, personal contact, and by insects of different kinds, the essential thing to know is the most effective way to prevent this threatened invasion either of our persons or our communities. To this end much attention has been paid by investigators and carefully made rules laid down, with the result that sickness has decreased materially in places where large bodies of men are quartered together, especially in the army; and when disease in epidemic form threatens, it is controlled rapidly and effectively. As applied to camps these rules differ but little from those as applied to villages, towns, or cities. There are certain fundamental principles involved that apply the world over, and if carefully observed and strictly enforced, make for healthy communities.

Camp Site

Be careful of your selection of the camp site. It should not be located on a spot that has been recently used for the same purpose. The site should also be frequently changed; in order to avoid the effects of soil pollution which might result from long continued occupation. The site should be selected with reference to several important particulars. The soil of the locality should be dry, sandy in character, and well drained. The soil should also be so located as to afford a plentiful supply of pure and wholesome water. Too much stress cannot be laid on this point. Low-lying, damp, or marshy localities should be avoided for obvious reasons.

The Camp

The camp should be as compact as will be permissible with health and cleanliness. When tents are used, a trench at least 2½ inches in depth should be dug around each tent to exclude surface water; and this should lead, with the trenches from other tents, into a larger one so as to conduct the rain water from the

camp ground. The camp should be laid out in streets and these should be cleaned regularly every day and all rubbish burned as promptly as possible. All kitchen refuse should be collected twice a day and removed from the camp-grounds or buried in trenches dug for the purpose. The tents or houses should be aired every day, and all bedding should likewise be exposed to the air every day unless the weather prevents.

Water Supply

There should be an abundant supply of pure water for all purposes for which it is needed. When the wholesomeness of the water is doubtful, some means of purification should be provided. For this the Forbes portable water sterilizer is now much used. This apparatus is in common use in army camps in the tropics, and good reports are made in regard to its efficiency in preventing the development of typhoid fever and diarrhoea diseases. Provision should be made of ample opportunities for bathing. In the absence of bodies of water large enough for swimming, shower baths at least should be supplied. Keeping the body clean is one of the greatest factors in the prevention of disease and the preservation of health.

Latrines

The latrines should be situated at least from four to six hundred feet to the leeward of the camp and not near the source of the water supply. A deep and narrow trench should be dug for the purpose. It must not be too wide or it will require more earth to cover the excreta. At least three times a day the excreta should be covered to a depth of from six to nine inches with earth or slaked lime. The dry earth readily absorbs the putrifying material and thus renders it inoffensive. This will also protect it from flies and insects, and limit one source of general infection should there be unrecognized cases of typhoid fever in the camp. The excreta of all cases of typhoid fever and dysentery should be disinfected at once, and should never be thrown into the trenches without this precaution. The excreta in the trench may also be burned daily by pouring kerosene upon them and igniting it. New trenches should be dug when the old ones are filled to within eighteen inches of the top, the old ones being completely filled with earth. The latrines should not be near the kitchen or mess-room, nor near the sleeping quarters.

Sleeping Quarters

Besides healthful sites, the essential conditions of sleeping quarters are dryness, warmth, light, amount of floor space, and air supply. Each man should have at least 100 cubic feet of air space and 12 square feet of floor space. There should be more space allowed if the quarters are constantly occupied. This, of course, refers to quarters where many are living together, as in bunk houses.

Ventilation

In frame quarters, ridge ventilation is entirely satisfactory, or it may be accomplished by means of double inlet and outlet tubes in the roof, so constructed that the fresh air enters through the outer tube and the vitiated tube takes its exit through the inner tube. When an epidemic of tonsilitis occurs in camp, deficient ventilation may be suspected, and the accumulation of infective dust, along with vitiated air is frequently the cause of tuberculosis and pneumonia.

Flies and Mosquitos

Since flies and mosquitos are frequent carriers of disease, they should be rigidly excluded from the quarters. They light upon all kinds of filth, and in this manner their bodies become infected and they no doubt carry the bacteria from place to place and contaminate whatever they light upon. During the summer months, therefore, all the doors and windows should be provided with screens or mosquito bars to exclude them.

This briefly covers the conditions necessary to obtain the proper sanitary conditions of a camp. They are not difficult to conform to and neither is the matter of expense of any moment. The camp can just as well and as economically be laid out along the right lines in the first place, and great benefit will result to all concerned in more and better work, better health, and a better frame of mind, if the simple rules of hygienic living are understood and applied.

Snubbing Logs With Air

By Henry A. Kalb*

Handling logs in steep chutes has always been very difficult to do without splitting and it is something that we can't get away from when logging in rough ground without going to a large expense to build railroads and get a good grade to the top of the hills; but in some cases it is even impossible to build railroads, so there is nothing to do but put in the common three-pole chute and keep control of the logs as much as possible.

Of course, there are some places that the logs can be made to chute into a pond. This will work out all right, but the places where you can have enough water for a pond are very few compared to the number of localities where it would be impossible to have a pond to chute into.

In our case the ground has been very rough and it was necessary to build chutes to get our timber from some of the hills. It was impossible for us to build our railroad to the timber. In some cases the railways had to be built right at the bottom of the chute. This, however, was very bad, especially during the wet season. Logs frequently would get away and beyond control, smashing into one another, splitting them up very badly. We have lost thousands of dollars' worth of some of our best timber in this way—splitting it at the bottom of a chute, and there was absolutely no way to avoid it. I think probably that there are a good many loggers here who have experienced the same trouble.

We are now using at the Quinault Camp an Air Snubbing Machine, built by the Smith & Watson Iron Works of Portland, Oregon, snubbing logs in a three-pole chute on a 30 per cent. grade, about 2,000 feet long, which is working entirely satisfactory, and we feel that our troubles from this source are at an end.

This machine is set at the top of the chute and acts as a headblock for the road engine as well as a snubber. There are a great many advantages connected with this machine. First, the proper place to snub the logs is from the top of the chute. Second, you only have the one main line in the chute, which is of great advantage. No doubt a great many of the loggers here have tried to use the old brake snubber, which adds another line in the chute with the trip line. These lines twist together and cause lots of trouble, increasing cable expense.

With this new Air Snubber, we can snub logs down almost any grade and have absolute control of the turn of logs at all times. The machine has a governor which controls the speed of the logs and it is impossible for them to get beyond the speed desired.

This all works automatically, requiring no attention at all. While the main line of the road engine is being tripped back, the pawls release automatically which allows the drum to rotate freely, acting only as a headblock.

Another important feature of this Air Snubber is that in a good many cases during the real dry weather the logs do not run at all in some chutes. In this case, the pawls are set so as to allow the drum to rotate freely all the time, acting as a headblock; but in case it should rain enough to cause the logs to run, you have your machine right there to act as a snubber. We have also used this machine for snubbing cars down some very steep grades, which worked entirely satisfactory.

Long stretches of expensive railroad building can be avoided in this manner through using this machine in connection with a chute direct from the top of the hill to the main line of the railroad.

* Paper read before Pacific Logging Congress at Tacoma, Wash.

Electric Power for Log Hauling

By C. O. Cole

With the passing of the "bull team" and the introduction of the steam driven power haul, with the steel rope to span the distance between the load to be moved and the source of power for moving it, came the question of how to apply the power of the engine or prime mover, to the hauling cable. And this problem of applying the power of the prime mover to the hauling cable has never, until the present day, been anywhere near successfully solved. For, notwithstanding the fact that the steam donkeys have been handling thousands of logs during the past twenty years, the difficulties and objectionable features in the application of the power of the prime mover to the hauling cable have remained; and with at least a part of them at all times, the operators have had to contend.

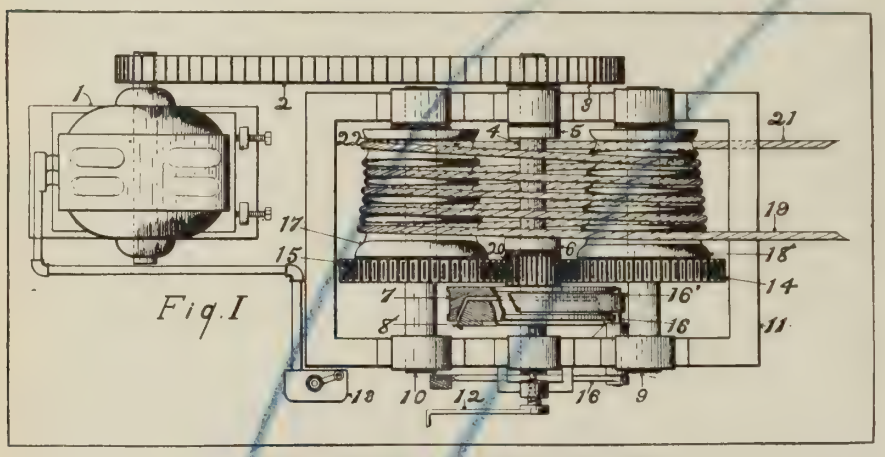
While the early types of steam donkeys, the old Dolbeer vertical spool, with its man spool tender, very desirably allowed the driving engine to be run up to speed and developing its full power when the cable was drawn tight around the spool to start the load, thus making practically the full power of the haul available for starting the load, and while they were able to deliver the power of the engine to the hauling cable at constant leverage throughout its entire length, they were subjected to the very undesirable features of not being able to take care of the cable after having pulled it in, of not being able to pull the cable back into the woods, and of severely wearing the cable as it crowded itself sideways on the spool off the flanges.

With the introduction of the higher power steam engine and the double drum donkey these difficulties mentioned above were overcome; but with their passing came the still very great objectionable features of the cable having to wind in on itself when under full load, the biting into itself causing severe wear, and the reduction of leverage through which the engine must handle the load as the drum fills up with cable and increases in diameter. And while these were very objectionable features they were the only ones which it was possible to contend with and operate extensively at all and in spite of the thousands of dollars that have been spent in the many attempts

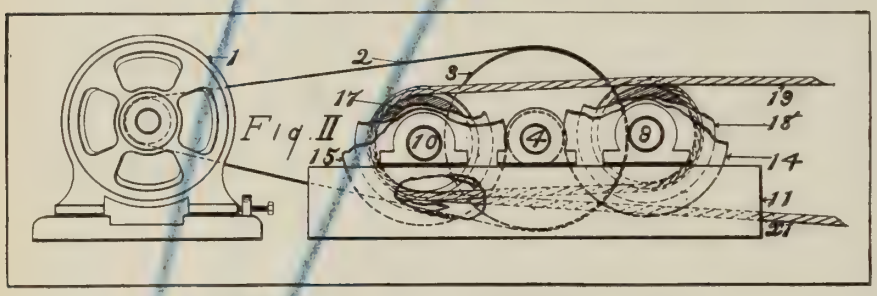
to design and construct a haul which would eliminate them, these objectionable features still remain; so that, several years ago, when the designing engineers commenced to figure on the design for an electrical driven haul for logging purposes, the "variation in leverage," as the drum fills up with cable, was found to be primarily the cause of so many objectionable features in the operations of the common type of motor driven log-hauls as to make their application to logging works impracticable.

However, electricity, instead of not being adapted to logging operations as would seem from the experiments of the past six years, lends itself most admirably to this class of work. And the electric motor when properly constructed presents two available sources of power, in a single prime mover, under such favorable conditions as to make possible a construction which not only makes electricity adapted to logging operations; but in this as in all other classes of work requiring the service of a prime mover, electricity is capable not only of doing the work cheaper, safer, and faster than any other source of power; but it is also capable of furnishing power in such a unique manner as to be able to eliminate the objectionable features in the application of power to a hauling cable that are, and ever have been, so prevalent in the steam driven hauls.

In an article on electric haulage published in the May, 1912, edition of The Timberman, we dealt with this subject, and showed, in



"Canuck" Electric Log Haul (Top View)



"Canuck" Electric Log Haul—(Side View)

the description of the "Chinook" Electric Log-haul, how the attraction and repulsion action between the field and armature of a motor tended to rotate the armature in one direction and the field in the opposite; and that by eliminating the base and legs of a motor and making the field housing cylindrical in shape with hubs extending out from each end to rest in large self-aligning bearings, that the field would rotate in one direction on these hubs at the same time the armature, whose shaft extends out through and is journaled in openings in the field hubs, rotates in the opposite. Thus in a motor constructed in this way there are two rotating elements rotating in opposite directions, constituting two sources of power; one, the inner rotating element driving two simultaneously rotating grooved drums for pulling in the loaded cable, and the other, the outer rotating element driving a common flanged drum for winding up the slack of the cable. And while the forces tending to cause one rotating element to rotate in one direction are acting just as strong on the other rotating element tending to rotate it in the opposite, it will be seen that the gear ratio between each rotating element and the drum it drives, may be made such as to deliver any desired relative amount of pull to the hauling cable at the two points of applying the power. Accordingly in the "Chinook" about thirteen-fourteenths of the power of the motor is applied to the cable at the haul-drums which act as a winch or spool for hauling in the load and about one-fourteenth is applied at the winding-drum which, winding up the cable pulled in by the haul-drums, acts as a perfect mechanical spool tender to them. The cable passing back from the haul-drums to the winding-drum where it is wound up, keeps the winding-drum rotating at the same peripheral speed as the haul-drums; and the gear ratio between each drum and the rotating element driving it, compels each rotating element of the motor to assume the relative number of r.p.m. to keep it in step with the movements of its respective load.

During the past ten years the objectionable features so prevalent in the steam driven haul, the "biting into the turns" as the loaded cable wound in on itself, and the "variation in leverage" as the drum filled up with cable, has inspired many attempts to design and construct steam driven hauls that would eliminate them. Notably among those constructed were the attempts to construct hauls that would operate an endless-cable. And of these there were at least two different kinds that were constructed and tried out in actual working operations. However, the operations of these endless cable hauls were not successful as in each case the machines when put into actual operation created internal strains which wrecked themselves.

In order to show why these machines failed to operate and to show how they may be made to operate with some degree of success, it will be of interest to recall something of their construction.

One of these endless cable hauls which was built and tried out in the vicinity of Bellingham, Wash., consisted of a series of simultaneously driven grooved sheaves of equal diameters arranged one before the other in such a manner as to have the cable take over one and under the next. Thus being adapted to having the cable take sufficient number of turns over these rotating sheaves for their frictional contact with the cable to hold it from slipping when pulling in the load. The slack cable, after passing off the last sheave, passing out through the works, through the required leads, and tail-block, and then returning to the machine; having the load hooked onto it by a cable-grip or "comealong" which was to be removed when the load reached the landing.

This machine, notwithstanding that it had been made with apparently ample strength in all its working parts, created internal strains which pulled itself to pieces.

Another attempt to construct endless cable hauls was made in British Columbia. These machines were quite different from the one just described and consisted of a pair of simultaneously driven grooved cylindrical drums arranged one before the other and adapted to having an endless cable take a sufficient number of turns over their grooved surface to hold the cable from slipping when pulling a load.

There were two of these hauls built and tried out. In one, the first, the haul-drums were mounted on three inch shafts and in the second the haul-drums were mounted on six inch shafts; and when this machine was attached to a donkey engine and hooked onto a load it created internal strains which pulled the drums together with such a force that it bent the six inch shafts on which they were mounted. Thus showing that the machine created more of a pull tending to pull the drums together than it did to pulling in the loaded cable.

The parties who built and tried out these machines seemed at a loss to know just why the machines had put more power to pulling the drums together than they had to pulling in the loaded cable. And simply threw up the attempt, attributing their failure to the cables winding onto the drum in this manner having acted something like a "chain block." However, during the past few months the forces, which acting in these machines, and the manner in which they were applied to put more power to pulling the drums together than was applied to the cable by the haul, to pulling in the load, have been figured out and a very simple remedy for overcoming them has been devised and is herewith described.

In pulling a load with a steel wire cable it is obvious that the heavy strain put on the cable is bound to stretch it to some degree. And also that when the cable is relieved of its load it will tend to shrink with practically the same force that was put on the cable to stretch it. This stretch may be ever so slight. Possibly not over a thirty-second of an inch per foot; but if an eleven ton load pulls a one thirty-second of an inch of stretch into every foot of cable between the load and the haul, this cable will tend to shrink one thirty-second of an inch with a force of eleven tons every time a foot of cable is wound onto the haul-drums and relieved of its load.

It will be recalled that the two gears, driving the two grooved cylindrical haul-drums over which the cable takes its several folds are driven by the same drive pinion so the two half-drums must rotate at the same speed; and therefore, if the first drum, that the loaded cable takes over, tends to wind in 5,236 feet of cable with every revolution of the drums, the second drum the cable takes over will be tending to wind in the same number of feet. Then, if after taking over the first drum, the length of cable, passing from the first drum to the second drum, has been relieved of enough of its load to make it tend to shrink one thirty-second of an inch with a force of one ton, it will be seen that the second drum, in trying to wind on as much cable as the first drum will either have to slip the cable in its groove or be pulled toward the first drum by the first fold of the cable acting in the first groove with a force of one ton trying to move it one thirty-second of an inch; and that every length of cable making a complete fold of the two drums in each succeeding pair of grooves will be pulling the drums together in the same way. However, as each succeeding arc of contact will relieve the cable of proportionately more of its load than the arc preceding it, and as each succeeding arc is trying to wind on more cable than is delivered to it by the arc pre-

ceding it, this shrinking force in each fold of the cable that takes around a pair of grooves is not distributed evenly throughout the length of the fold, but is much greater in one span of the cable passing between the two drums than it is in the other; and acts at practically a double leverage on the drum-shafts, tending to bend them, in the following manner: The lengths of cable, passing from one drum to the other, that have the least tendency to shrink correspond to the "hinge point" of a nut cracker, or the "fulcrum point" of a lever mechanism. Then the radius of the drums, or the distance from the side of the drums between which passes the lengths of cable having the least tendency to shrink to the centre of the drum-shafts corresponds to the "work arm" of the lever. The diameter of the drums, or the distance from the side of the drums between which passes the lengths of the cable having the least tendency to shrink to the opposite side of the drums where the cable has a greater tendency to shrink, corresponds to the "power arm" of the lever. Thus each set of cables passing back and forth between the two sides of the drums constitutes a complete lever couplet with the "power arm" twice as long as the "work arm," and acting on these several "power arms" is the force of the shrinking cable; and this force is repeated with the winding on of every length of stretched cable that is required to make the several folds from where the cable first comes in contact with the drums to where it winds off slack and shrunk to its normal length.

In order to meet the requirements of the shrinking cable as it is wound in and relieved of its load. And in order to construct a haul that would apply the power of rotating drums to an endless cable without creating the internal strains referred to above, there has been designed and we are presenting herewith the "Chinook's" little brother, "The Canuck" endless cable roader, or lowering haul. In this machine the two drums provided for applying the power to the hauling cable, instead of being cylindrical, are grooved conical drums with the drums just enough smaller in diameter at each succeeding groove to allow for the shrinkage of the cable up to where it comes in contact with the drum at that point.

By this arrangement, while the first grooves around which the cable takes, are pulling in the normal length of the cable plus the stretch pulled into it by the load, each succeeding groove being smaller in diameter will be tending to pull in less, and less, length of cable until it has been relieved of its load and is shrunk to its normal length. However, as the amount of stretch pulled into the cable by different loads will vary it will be necessary to make the variation in the diameters of the several grooves sufficient to meet the requirements of the heaviest loads when the cable is stretched to working condition. Then in order to meet conditions when the variation in the diameters of the several grooves exceeds the requirements of the shrinkage of the cable, the last grooves, around which the cable takes, after having been relieved of its load, is provided to be larger in diameter than the ones preceding it. This large groove with its greater diameter will tend to wind more cable onto itself and thence off the drums, than the preceding grooves; and will create a pull on the cable. Thus acting as a spool-tender and keep the cable tight in the preceding grooves, so each succeeding groove in this conical drum construction will assume its proportion of the frictional contact with the cable and deliver its share of the power without creating internal strains in the machine.

The accompanying cut, Fig. 1, shows a top view of the "Canuck," and in this drawing reference numeral 1 indicates a common motor furnishing power to haul through a steel chain drive (2) which takes over a gear (3) on the drive-shaft (4). Numerals 7 and 8 are respectively the loose and tight members of the friction clutch with the member (8) splined to the shaft (4) and provided, when brought into frictional contact therewith, to drive the loose member (7) which is fastened to the pinion (20). Nos. 9 and 10 are the haul-drum shafts. No. 11 is the haul frame. No. 12 is the lever controlling the friction (7 and 8). No. 13 is the electric circuit controller. Nos. 14 and 15 are the main gear on the drum-shafts. These gears are keyed to their shafts and engaging the pinion (20) receive power therefrom for driving the conical haul-drums (17 and 18) which are fastened to their shafts (10 and 9) respectively. No. 16 is a foot-operated band brake which is provided to bring the band (16) into frictional engagement with the outer surface of the clutch member (7) for holding it and the pinion (20) with its engaging gears and haul-drums. No. 19 is the incoming loaded cable, and 21 is the outgoing slack cable. No. 22 is a somewhat enlarged groove provided to receive the last fold of the outgoing cable and designed to create a pull on the cable as it leaves the drums, thereby acting as a spool-tender by keeping the cable tight in the preceding grooves in case the variation in the diameters of the several preceding grooves exceeds the requirements of the shrinking cable.

The motor and controlling apparatus required to operate the "Canuck" are to be of the common type as designed and manufactured for use in heavy service such as will be required of these hauls. And in cases where it may be desirable, a steam donkey may be used to furnish power and a gear train substituted for the steel chain drive as shown.

The "Canuck" was designed primarily to meet the requirements of the shrinking cable when being pulled in by rotating grooved drums. And while its range of usefulness can in no way compare to that of the "Chinook" it does furnish one means of applying power to a hauling cable at constant leverage and is one step in the solution of the problem of adapting electric haulage to logging works. And where operating conditions are such as to make the use of an endless cable roader practicable it will be serviceable as such; and by attaching a third drum it will be able to do the loading. The brake (16) engaging the friction member (7), as it does give it a powerful levering over the load, so the machine will be serviceable as a lowering haul for handling logs off from steep, rough ground where, by making use of a tail-block having sufficient strength and anchorage, the outgoing cable may be used as a hold-back to let the logs down at any desired speed.

The "Canuck" presents a rather unique, yet simple means of applying power to a hauling cable. And it is such a simple little machine, so inexpensive to construct and install, so simple and economical to operate and control that wherever the use of an endless cable system is practicable and desirable it will be a very simple means of introducing electricity in the woods.—The Timberman.

Hoo-Hoo Annual at Asheville

The twenty-first annual meeting of the Concatenated Order of Hoo-Hoo was held at Asheville, N.C., on July 18th, 19th and 20th, and was a most successful and encouraging event. The attendance was unusually large and a number of important matters were discussed and disposed of. The chief of these was the decision that in future Hoo-Hoo should have permanent headquarters at St. Louis, Mo. Another matter of importance was the appointment of a new Supreme Scrivenoter, on account of the resignation of Mr. James H. Baird. The nominations for a successor to Mr. Baird were two in number, Messrs. Wm. M. Stephenson, who had occupied the position of Supreme Representative for two years, and J. C. McGrath, Arkansas. The election resulted in favor of Mr. Stephenson the vote being as follows: Stephenson 4347¾; McGrath 3577¼.

The selection of officers for the ensuing year resulted as follows: Snark of the Universe, F. W. Trower, San Francisco, Cal.; Senior Hoo-Hoo, J. M. English, Asheville, N.C.; Junior Hoo-Hoo, E. D. Tennant, Winnipeg, Canada; Bojum, John Oxenford, Indianapolis, Ind.; Jabberwock, J. F. Wilder, Hattiesburg, Miss.; Custocatian, L. R. Fifer, Seattle, Wash.; Arcanoper, J. B. Baker, Hodge, La.; Gurdon, George J. Michelsen, Rochester, N.Y.

A feature of the proceedings was the holding of an excellent business session and initiation by the Osirian Cloister which had not held a meeting for nearly two years. At the conclusion of the annual meeting of the Order a splendid session on the roof was held at which thirty-three kittens were shown the light, in the presence of nearly 200 experienced old members. The Asheville Hoo-Hoo left nothing undone for the comfort and entertainment of the visitors and the general success of the annual was in no small measure due to their efforts.

One of the pleasantest features of the annual was the presentation of a gold watch and chain to Mr. J. H. Baird, the retiring Supreme Scrivenoter, who had occupied this important position for sixteen years, during which a great deal of the success of the Order had been the direct result of his untiring efforts.

Messrs. Kenneth M. Clark and James A. Conners, of the forestry staff of James W. Sewall, Old Town, Maine, have gone into northern Maine to take charge of the mapping, surveying and exploring of a large tract of land for the Great Northern Paper Company. Mr. Sewall is on a short trip in the upper Penobscot region of Maine, in the interests of one of the timberland owners of that state. Last year Mr. Sewall had charge of the complete mapping, estimating and surveying of approximately 500,000 acres of land, in both Canada and the United States. This year's work bids fair to equal that of 1911, as it has extended from as far south as the Isle of Pines, through Kentucky, North Carolina and Maine into Nova Scotia.

Secretary of the Treasury MacVeagh, of Washington, has decided that wood pulp, print paper, and paper board manufactured from woods of British Columbia, from which the export restrictions were recently removed by the Council of that province, will be admitted to the United States free of duty under the one operative clause of the Canadian Reciprocity Act. The woods affected are on certain leases controlled by the Powell River Company in British Columbia, lying west of the Cascade range mountains. The order is expected to increase importations of free wood pulp and paper to the Pacific coast States, and will be in effect after July 12.

WANTED & FOR SALE DEPARTMENT

PUBLISHERS' NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

WANTED—LUMBER, ETC.

WANTED—A quantity of 4/4-in. Ontario Plain Red Oak, vicinity of Georgian Bay preferred. Apply Box 535, Canada Lumberman, Toronto, Ont. 14-17

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

Slabs and Cord Wood Wanted

Am open to buy any quantity up to 10,000 cords hard and soft wood slabs and cordwood. Write me. Horace Hartley, 19 Mayor Street, Montreal. 15-19

Square Hemlock Wanted

8 x 8 and up x 10 ft. and up, Merchantable Hemlock. Horace Hartley, 19 Mayor Street, Montreal. 15-16

White and Red Pine Wanted

3 in. x 6-in-7-in. 18 ft. Tank Stock.

Ontario Wind Engine & Pump Co., Ltd.
Toronto, Ont. t.f.

Trimmer Ends Wanted

Price and freight rate permitting we will contract to take your White Pine Trimmer Ends, rotten pieces thrown out, fresh stock and not colored. Write price per cord on car and state shipping point.

The Wm. Cane & Sons Company, Ltd.,
11-17 Newmarket, Ont.

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4½ in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

FOR SALE—LUMBER, ETC.

FOR SALE—200 M. ft. 5/8 No. 1 clear Spruce, cut 1910 and 1911. Also 100 M. ft. Cedar, 8 x 8, 12 x 12. Edouard Ruel, Lauzon, Levis, Que. 16

For Sale

For quick shipment, 100 M. ft. 2-in. Birch, December, 1911, cut. No. 2 C. & B. at $20 per M. on cars. Farm Point, Que. Hall Bros., 174 Mutual Street, Toronto, Ont. 16t.f.

For Sale

100 M. ft. 2-in. Cull Spruce. 300 M. ft. 1-in. Cull Spruce. 15 M. ft. 1¼-in. M. C. White Pine. 50 M. ft. 2-in. M. C. White Pine. Fred T. Smith, 310 Board of Trade Bldg., Montreal, Que. 1.t.f.

For Sale

500,000 feet Band Sawn Birch 4/4, 5/4 and 8/4 in shipping condition, rail or water shipment The Rathbun Company, Deseronto, Ont. 14-17

For Sale

To the manufacturers: Birch, Maple, Basswood and Elm in all thicknesses. Send us your enquiry. The Meaford Lumber Company, Meaford, Ont. 7-20

Lumber For Sale

4 cars 1-in. good cedar for boat building.
100,000 ft. 2 x 6 mill run hemlock.
100,000 ft. 2 x 8 mill run hemlock.
4 cars 2-in. white oak, sound and square edge. Apply to Geo. C. Goodfellow.
Montreal, Que.

For Sale

For quick shipment, 800,000 ft. Birch. All grades and thicknesses.
200,000 ft. Soft Elm M. R. All thicknesses.
100,000 ft. Basswood M. R. inch.
100,000 ft. Maple. All grades and thicknesses.

Send us enquiries. The Meaford Lumber Company. 7-20

FOR SALE—MACHINERY, ETC.

Cowan double surfacer, pipe bender, rope drive, ribsaw, one fifteen horse motor D. C. one twenty-five horse generator D.C. Apply Gold Medal Furniture Manufacturing Company, Toronto. 15-17

For Sale

Locomotive, suitable for yard work, standard gauge, saddle tank,—15 tons. Sheam pressure 140 lbs.; steam boiler. All in good condition. Apply Empire Lumber Co., 1205 Traders Bank Bldg., Toronto, Ont. 16

Saw Mill For Sale

On Georgian Bay, adjacent to North Shore, good two-storey circular mill in good running condition, double edger, trimmers, capacity about 12,000 feet per day; plenty timber available and ready sale for slabs; splendid opportunity for small millman; will be sold cheap as owners have other interests requiring their attention. Box 444, Canada Lumberman, Toronto, Ont. 5-TF

Machinery For Sale

A Waterous No. 4 Band Saw Mill, with Carriage Saws, Live Rolls, and complete Filing Room equipment, also several Good Woodworking Machines, in splendid condition.

J. S. FINDLAY,
2-TF Owen Sound, Ont.

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 70 H. P. boiler, 60 H.P. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water.

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

Machinery For Sale

Carver, 4 spindle Rohlman.
Cut-off saw, railway.
Dovetailer, Boults.
Engines and Boilers.
Jointer, chair seat, Jenkins.
Jointer, 16-in., Clement.
Moulder, 2 side, 6", Smith.
Moulder, 3 side, 6", Smith.
Moulder, 4 side, 6", Houston.
Moulder, 4 side, 9", Fay.
Moulder, 4 side, 12-in., Woods, inside.
Mortiser, Smith.
Mortiser, Bit.
Planer, 20-in. Gem.
Planer, 24-in. Cincinnati.
Planer and matcher, 9-in. by 6-in. Berlin.
Resaw, band, American, 48-in. wheel.
Resaw, 42-in. corcular.
Rip saw, circular, self feed, Williamsport.
Sander, 24-in. Perry, power, two drum.
Saw Gummer,—Rogers.
Saw-mill, band, 63-in. wheel, carriage 18 ft.
Shaper, home made, wood frame, 2 spindle.
Shaper, iron frame, wood table, 2 spindle, light.
Shaper, iron frame, wood table, 2 spindle, heavy.
Swing saws, 6 ft.

O. L. Packard Machinery Company,
C Milwaukee, Wis.

Logging Equipment For Sale

100 Russell logging cars, complete with all chains, brakes, etc., in strictly first class condition at exceptionally low price. Full outfit of logging equipment, horses, harness, sleighs, chains, tools, blankets and camp outfit, all at a small fraction of its value. Write for prices and full description to Yawkey-Bissell Lumber Co., Arbor Vitae, Wis. 14-17

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Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

Experienced engineer accustomed to running and repairing locomotive, wants position. Apply to Empire Lumber Co., 1205 Traders Bank Bldg., Toronto, Ont. 16

Executive position desired by young man capable of handling Southern States imports. Has practical and commercial experience, covering period of twelve years. Replies solicited to Box 553, Canada Lumberman, Toronto, Ont. 16

WANTED—Position as Bookkeeper and office manager with wholesale lumber firm. Ten years' experience; competent to handle all of a lumber office work. Best of references furnished. Apply Box 521, Canada Lumberman and Woodworker, Toronto, Ont. 13-16

Manager and Salesman

Would like to correspond with large first class Hardwood Manufacturers unrepresented in New York territory, who would open office here. Years of experience in all lines of hardwood trade. Well known and draw large business. Employed now and could hold open for 1913. Married; good salary wanted. Box 551, Canada Lumberman, Toronto, Ont. 16

WANTED—EMPLOYEES

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—A manager for retail lumber business in Alberta. Apply Box Canada Lumberman, Toronto, Ont. 16-17

WANTED — General Superintendent for Sash and Door Factory and General Planing Mill. One who understands Plans, Cost, Estimate and having good control with men. Good position to the right man. Address Box 552, Canada Lumberman, Toronto, Ont. 16-17

WANTED—Lumber traveller acquainted with Western Ontario wholesale trade. Must be strictly temperate. Apply, stating salary expected and experience. Selling pine and hemlock principally. Box 554, Canada Lumberman, Toronto, Ont. 16

Reporter

We want an energetic representative in each town in Canada to report on building and engineering work—to tell us where machinery, equipment, supplies or materials may be sold. Reports are paid for on the per item basis. It depends upon your own efforts how much you make. This is a profitable side line and there is good money in it for a hustler. Write to MacLean Daily Reports Limited, 220 King Street West, Toronto.

BUSINESS OPPORTUNITIES

For Sale

Retail Lumber Business, situated in central position, Calgary, Alta. Premises for sale or on lease. Stock at wholesale price; easy terms. Wattsburg Lumber Co., Ltd., Wattsburg, B.C. 16 & 17

Timber Limit For Sale

1,200 acres Hardwood, Hemlock and Cedar. Some Pine; 9 million feet for $5,000 cash. Five miles from railroad; two from river. Box 431, Canada Lumberman, Toronto, Ont. 6-t.f.

For Sale

Timber limit, comprising 18 sq. miles, containing 25,000,000 feet mixed timber. Apply Geo. S. Nesbitt, Rupert, Que. 16-19

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest, if your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf.

For Sale — Sawmill with Capacity

Of one hundred thousand feet per day. Located in Everett, Wash. Good rail and water shipping facilities. Ten and one-half acres of land with excellent mill pond. Price less than one-third of appraised valuation. 15-18

Address, P. GARDINER, Everett, Wash.

For Sale

Established Lumber Business, with first-class mill, now running full time. Timber limits with 20 to 30 million feet of standing pine timber conveniently located, and all merchandise, etc. Price $55,000. This is worthy of investigation. Address Box 332, Canada Lumberman, Toronto, Ont. 19-22-t.f.

WANTED—Owner of good Portable Mill or two, to take an interest with us in 4,000 acres spruce and birch timber tract in Quebec. Fine mill sites on two streams, level road to station—three miles—good and ready sale of lumber. We own the timber but want experienced men to take contracts from tree to train.

LAYCOCK LUMBER CO.,
16 Ellicott Square, Buffalo, N.Y.

Timber For Sale

Tenders will be received up to and including the first day of October, 1912, for the right to cut white and red pine and spruce, on two timber berths on the upper waters of the Jocko River east of the townships of Garrow and Lockhart, in the District of Nipissing, Province of Ontario, the berths being designated "Jocko No. 1" and "Jocko No. 2," each containing twenty-five square miles more or less.

For maps and conditions of sale apply to the undersigned.

W. H. HEARST,
Minister of Lands, Forests and Mines.
Toronto, July 17th, 1912. 15-18

Important Sale of Valuable Timber Limits

Sealed tenders will be received by the undersigned up to and including the **20th day of December, 1912**, for the purchase of:

Limit No. 194 of 1873-74—River Jean de Terre—tributary to the Gatineau, containing an area of fifty (50) square miles, more or less.

Limit No. 195 of 1873-74—River Jean de Terre—tributary to the Gatineau—Island Lake, containing an area of fifty (50) square miles, more or less.

These limits comprise some of the best pine and pulpwood areas in the Province of Quebec.

Map showing location of these timber limits and report thereon may be inspected at the offices of the undersigned and from whom further information may be obtained.

The highest or any tender not necessarily accepted, and the acceptance of any tender will be subject to the approval of the Court.

The Toronto General Trusts Corporation,
30, Sigin Street, Ottawa, Ont.

or

Messrs. Aylen & Duclos, Barristers,
Castle Building, Ottawa, Ont.

or

Messrs. Belcourt & Ritchie, Barristers,
Castle Building, Ottawa, Ont.

Dated Ottawa, August 5th, 1912. 16-20

Dalhousie Lumber Co. Increases Its Holdings

The Dalhousie Lumber Co., Ltd., which now possesses extensive timber limits in Restigouche County, with headquarters at Dalhousie, N.B., is reported to have closed a deal by which it takes over 100 square miles of well wooded limits located on the York River, Gaspe County, P.Q. The purchase was made from the Gaspe Trading Company and sixty miles of these valuable limits are in fee simple. The new owners will proceed at once to enlarge the plant, which will consist of shingle mill, long lumber and pulp mill. The estimated value of the property after the proposed improvements are made will be about $350,000. The operations at Gaspe will be under the management of the head office of the Dalhousie Lumber Company at Dalhousie, with A. H. Hilyard, formerly of St. John, as manager.

Better Methods in Manufacturing Lumber

With the above title, the Wood-Worker, in a recent issue, publishes a letter signed by a D. C. Grandin in which the writer makes extended criticism of present methods of manufacturing lumber and makes a number of suggestions as to improvements that should be made. We do not believe, says the Mississippi Valley Lumberman, that his conclusions as to the faulty methods of manufacture were reached after a very extended study of what is being done by the modern sawmills of the country, or from a very extensive knowledge of the methods used in the manufacture of by far the larger part of the lumber output. They apply, undoubtedly, to a considerable number of the smaller mills in all parts of the lumber producing sections. His chief criticism is on the methods used for sorting, but practically all of the up-to-date mills, so far as the observation of the editor of The Lumberman goes, have sorting platforms at the tail of the mill where the various grades and lengths of lumber are economically divided and sent to their respective locations in the yard at a minimum of expense. On this subject he says:

"A party of sawmill men were recently discussing ways and means of reducing handling expenses. One of them took the ground that the main trouble at present is the way the logs are handled. He pointed out that in many mills, if not most of them, logs are brought to the saw without regard to their length. They are cut up just as they come. If there happens to be a 10-foot log at hand, it is put on the saw, while the next one may be 16-foot or only 8-foot. It doesn't require much thought to see the amount of wasted effort that is involved here. In the first place, the saw and its accompanying equipment have to be adjusted to the new length, and that takes time that might have been used to advantage in manufacturing. After the lumber is cut it is of all lengths, and leads to the expenditure of a lot of unnecessary labor in assorting for the various piles. Instead of being able to load a truck and have it hauled to the pile of 10, 12 or 14-foot boards, as the case might be, it is necessary to deliver part of it to one pile and part to another, the result being that time is taken and ground covered needlessly and expensively."

As before stated, by far the larger part of the mills have sorting platforms where machinery is provided for just this class of work, and where it is done with the least possible expenditure of time and effort. The alternative would be the sorting of the logs before they go to the saw, either in the mill pond or at the point where the logs are loaded on the logging cars. In either case the process would require a vast amount of heavy hand labor under conditions not favorable for economical work.

Again, he says, "Some operators who are looking for ways to decrease expenses even take the ground that it would pay to assort lumber as to widths as well as lengths. Some of the most successful men in the business are using this system and find that it pays. It means more labor at the saw, of course; but it also means less in the yard, when the orders come in. Buyers of lumber have reached the point where they specify exactly what they want, and the lumberman who has to tear down five or six piles to select the boards that fit into a particular order is not in line to make very much money on that business."

It is a part of the work of the man at the sorting platforms of the modern mills to divide all lumber that comes from the mill into kinds, grades, lengths and widths. This is quickly and easily done, and each is taken to its particular location in the yard. The various classifications are made, in piling; so that in loading out orders, the least possible time is consumed. In the yard of such a mill one does not see different lengths, different grades or different widths in the same pile, and it is never necessary to tear down piles to get at what is wanted by the buyer. Price lists and quotations are made on the different grades, lengths and widths; but there is also a place on the list for mixed widths, but these are only piled together in the case of low grade stock which is usually sold and used that way. The carriages of modern mills are so built as to take either the long or the short logs with no pause for the adjustment of equipment, and no lost time in bringing logs of different lengths to the saw.

If Mr. Grandin's criticism applies to any class of mills it must be the small hardwood mills, or small mills in sections where other kinds of lumber are manufactured, and where the size of the operations does not admit of the expenditure of an amount necessary to provide the latest forms of equipment. Modern mills cutting mixed hardwood timber are able to sort the stock as it comes from the mill and do it with the least possible delay and effort. We can easily see that the mill with only one or two trucks on which to transfer the lumber from the mill to the pile would be handicapped, if it attempted to manufacture several kinds of lumber at the same time. In such a case it would, perhaps, be economical to sort the logs as to kinds and lengths before they went to the saw.

Pioneers in Double Band Sawing

In the Canada Lumberman of August 1st an article was published relating to the first installation of a bandmill in Canada. It was stated that the first double cutting band saw operated in Canada was at the mill of the J. D. Shier Lumber Co., of Bracebridge, Ont., and that the mill was one of the old "Atlas" make. Those who are acquainted with the band mills in use in Canada will have understood that this was an error and that the name of the mill should have been "Allis." The mill in question was the telescopic band manufactured by the Waterous Co., Brantford, Canada, on the Allis patterns and at the time of its installation seemed to be the only solution of the double cutting problem. Some years later the Waterous Engine Works Co. designed their double cutting guides which made double cutting on a solid mill possible. They were introduced in the Conger Lumber Company's mill at Parry Sound in 1901. This mill was therefore the pioneer in double cutting on a solid mill, the arrangement which has almost entirely replaced the telescopic model.

Canadian Woods in Liverpool

Messrs. Alfred Dobell & Co., Liverpool, Eng., in their monthly Timber Market Report dated August 2nd, give the following information:

During the past month supplies came forward liberally and met an excellent consumption notwithstanding the fact that deliveries were again interfered with owing to shortage of railway wagons. Values generally were very firm and in some articles an advance was recorded.

Canadian woods—Waney board and square pine—There was a moderate consumption at firm figures. Oak—There were no arrivals. Stock is light and prices very steady. Rock elm—The import consisted of a small parcel per liner. There was a good demand at unchanged quotations. Birch—Logs continued to arrive on a liberal scale per liners from Quebec and Halifax. The consumption was above the average, but the stock is heavy. Prices were easier. Planks have also arrived freely. The consumption figures include substantial transhipments from Liverpool. Stocks are excessive and values lower. Pine deals and boards—The import and consumption were on a normal scale. Quotations unchanged. New Brunswick and Nova Scotia spruce deals—As compared with this time last year the arrivals to the Mersey ports were 3,870 standards less, the consumption 4,520 standards more and the stock 970 standards less, which is a healthy position. Prices firm.

Measure Your Lumber With the Barkey Lumber Register

The most accurate measure on the market.
Can be instantly adjusted.
Capacity 60,000 feet.
Measures any width and length.
Can be used on any moulding or matching machine.
Will work backward as well as forward, and will not slip on smooth or icy boards.

SENT ON 30 DAYS' TRIAL. RETURN AT OUR EXPENSE IF NOT SATISFACTORY.

BARKEY BROS.
Sole Manufacturers
STOUFFVILLE - ONTARIO

Review of Current Trade Conditions

Ontario

The inability of the railroad companies to supply cars for the transportation of British Columbia shingles, owing to the large amount of grain being moved in the West, is causing several Ontario firms no little inconvenience. Several of the firms are behind in their orders and state that they cannot rely on deliveries. No advances in prices have been announced in B. C. shingles to date.

Trade in Ontario continues to be very good with prices about normal, although the scarcity of dry hemlock is causing some annoyance. Dry lath are also hard to get, and firms that are fortunate enough to have a stock on hand are besieged with orders. The pine market is firm with a good demand, and apparently large stocks on hand.

The hemlock market is causing some pessimistic views to be taken by the local dealers, as to the probable cut and source of supply for next year. This year's cut is said to have been from forty to fifty per cent. lower than any previous year, and owing to the large amount of building under way in the larger cities, the demand has been very heavy, coupled with the best of prospects for next year. Bark dealers state that whereas in other years they have been able to get from 25,000 to 30,000 cords of bark per season, this year they have only been able to get about 12,000 cords. It will thus be readily seen that this year's cut has been considerably below the average, but the building trade continues to be good, with expectations that next year will eclipse all records and the mills are preparing to take out a cut this coming winter that will again put the market on a good footing so far as stocks are concerned.

The hardwood trade continues to be good, with fair prospects of further demands. Prices are normal as a rule, with a small advance in basswood and rock elm. Basswood No. 2 and 3 common is selling at $17 and 6/4 and 8/4 common and better at $37.00, an advance of $2 per thousand. Rock elm No. 2 common and better 6/4 and 8/4 advanced to $37, but birch, maple and oak remain about the same.

Taken as a whole the trade in Ontario is good and promises to continue so for some time.

Eastern Canada

Lumber trade conditions at Montreal have been practically unchanged during the last fortnight. There is a good amount of business in progress both with wholesalers and retailers. Prices of shingles, clapboards and ties are higher. Trade with the United States is in moderate volume and conditions are better than they were a year ago. Shipments to Great Britain and Europe are more active than earlier in the season on account of the fear of a tie-up of cars in the fall. The demand from the other side of the Atlantic is good. There is an exceptionally heavy demand for news print paper from the United States.

Trade in Eastern spruce at Boston is fairly active. A few buyers are holding off in expectation of further reduction in prices. Although prices are a little lower than they were a couple of months ago, manufacturers and dealers report that higher prices are to be expected by September 1st. A steady movement is reported in frames, the highest price offered is $24.50. A few mills are still asking $25. Random is firm. Dealers are asking $22 to $22.50 for 2 x 4's and sales at the latter price are reported. For 2 x 3, $21.50 is the price asked. There is a fair demand for boards and the offers of dry lumber are small.

Shingles at Boston are moderately firm. Cedar extras are offering at $3.90 to $4 and sales are reported at both prices. The quotations for clears are from $3.55 to $3.65 and choice stocks are bringing the higher price. Lath are moving moderately well. A slight improvement is reported for 1⅝-in. Prices range from $4 to $4.10. For 1½-in. prices are from $3.65 to $3.75.

At New York, the demand for eastern spruce continues strong and wholesalers are experiencing some difficulty in securing shipments. Most of the yards have fairly good assortments. The building trade is active and is taking plenty of stock. Prices are satisfactory. Hemlock at New York is in strong demand with prices about steady. Stocks are scarce although there seems to be no indication of higher prices.

Hemlock boards are firm at Boston. Dry stocks are light. Eastern clipped boards are firm at $22 to $22.50. Northern boards are selling at $22.

Great Britain

An improvement is reported in the London spot market, the long continued dock troubles having resulted in reduced receipts, and it is expected that an advance in prices will result in the near future. It is reported, in fact, that higher prices are fairly general already. The demand at present is moderate but with the settlement of the strike there is a good prospect of improvement. Deliveries at London docks for the week ending July 27th totalled 5,830 standards, as compared with 6,034 during the corresponding week of 1911. At Churchill & Sim's recent auction sale, Vancouver clear silver spruce brought from £24 5s to £21 10s, according to weight. A parcel of spruce from Montreal was sold at £10 5s for 3 x 9, 3 ft. fourths. Red pine thirds, 3 x 6, 12 to 15 ft., from Ottawa, brought £9 15s, and seconds 3 x 5, 12 to 16 ft., brought £10 5s.

Liverpool reports state that the timber trade is steady and that the labor difficulties have had little effect upon trade conditions. No change is reported in the market for spruce deals and none is expected for the balance of the season unless a slight advance occurs. Some importers are inclined to expect an advance of this nature, on account of the freight market situation. Steamers suitable for carrying deals are scarce and can only be secured by paying high rates of freight. The spruce spot market is not very active, although one would expect consumers to secure their requirements at present prices as there is little likelihood of any decline. Stocks are only moderate. British Columbia and Oregon pine have to a large extent supplanted pitch pine at Liverpool. Stocks of prime lumber of this class are scarce. The lower grades have been coming in more freely, in fact a little more freely than required. The market for birch is only fair although f.o.b. values are high. Imports have been rather extensive compared to the demand.

The timber trade at Manchester is rather quiet but prices are firm all around. Spruce and floorings, particularly the latter, are firm; £10 25s 6d c.i.f. being the price for floorings. British Columbia pine is in strong demand with a likelihood of higher prices. The trade in this is gradually getting into fewer hands.

At Glasgow, spruce continues scarce and in good demand, particularly for 9s and under. Arrivals are light and are quickly taken up. Birch logs have come into the market freely and stocks are ample. Planks, on the other hand, are scarce, and buyers are having trouble in filling their requirements.

United States

A noticeable increase in demand for stocks of lumber throughout the United States is interpreted by most of the trade as the commencement of the fall demand. It is particularly remarkable that there is practically not a single weak spot in the entire lumber trade of the United States and Canada. Retailers throughout the beginning and middle of the present summer were inclined to stand off somewhat, but they have lately realized that they are unable to secure lower prices than those which are prevailing and now they are in the market with extensive requirements. Every department of trade reports a general feeling of confidence so that prices for the commencement of the fall trade are firm, some advance being reported especially in yellow pine. The hardwoods and hemlock, spruce, white pine and norway pine are all firm. Old members of the trade are unable to recall a period where such a general firmness was more pronounced than it is to-day. If one were to seek for the cause of this condition it would be found more than anywhere else in the shortage of stocks. Surplus stocks are practically unknown at any stage from the mill to the retail yard. The demand at present is neither local nor confined to any particular class of trade. Retailers, factory consumers and the railroads are all keen to have their orders filled without delay. This demand is of the hand-to-mouth character, but being so wide-spread, is causing exceptional movement of stocks.

Chicago:—The demand for northern pine, particularly Norway joists, is strong, No. 2 common has recovered from the slight lull of a week or two ago. The demand for hardwood is improved and a good fall trade is practically certain. A number of inquiries are coming from furniture and farm implement manufacturers. Ash and oak are firm, the railroads being in the market for extensive quantities of the latter. The better grades of plain and quartered oak are moving steadily. Hemlock stocks are scarce in the desirable sizes and the demand is firm with prices strong and inclined to advance. Hemlock has benefitted from the improved demand for yellow pine. Spruce and cedar are firm and the outlook is improving as the season advances. Increased inquiries are reported for yellow pine and some concerns are unable to fill orders as fast as required. The railroads are extensive consumers at present. Other consumers who have been out of the market for a long time are coming back. The demand for red cedar shingles is moderate only. Prices have advanced, clears bringing $3.32 and stars $2.84, Chicago basis. Lath continues firm and in steady demand.

Buffalo.—There is a fair trade in the various grades of northern pine and the lower grades are firm. Advances are expected in the

ONE OF THE MANY LARGE RAFTS OF LOGS THAT COME TO OUR MILL AT SARNIA, ONT.

BUY THE BEST

Retailers and woodworking establishments who like to get AI NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

How about PINE LATH? We have a fine dry stock on hand for immediate delivery.

We also make a specialty of heavy timbers cut to order any length up to 60 feet from Pine or B. C. Fir.

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Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

A. F. Holden, Pres. J. M. Diver, Vice Pres. and Gen'l. Mgr. E. C. Barre, Ass't. Mgr.

near future on account of lightness of stock. Good lumber is scarce. The box factories are rather quiet but are expecting improvement in the near future. Trade in hardwoods continues active. Nearly all classes are held at firm prices and many classes are short. The demand for plain oak is good although stocks are extensive. Maple is in good demand and the low grades are disappearing. Orders for hemlock continue numerous and an advance in prices on the part of Pennsylvania mills is not unexpected. A normal demand exists for fir and spruce, with prices well maintained. Prices of yellow pine continue strong and there are plenty of orders ahead. The outlook is excellent, as the building prospects are numerous and the railroads are able to make better deliveries than a few weeks ago.

Bay City and Saginaw.—Northern pine is moving steadily and prices are firm. The box business is active and taking more than the usual amount of stock. Building operations are numerous and are using large quantities of pine.

North Tonawanda.—The demand for northern pine continues steady with prices strong. The trade, however, is largely of the hand to mouth nature. Box and lower grades are in fair supply but are moving steadily.

Market Correspondence

Quebec Timber and Pulpwood Markets

Quebec, August 5th; (Special correspondence of the Canada Lumberman); Although a large quantity of lumber and deals are being shipped from Quebec for the European markets, there are no new sales to report. Nearly all the sales were made during the winter season in Great Britain. Some rafts of square timber have arrived here lately, mostly white pine from Ontario. They are generally on owners' account for shipment to Europe. There is also a good deal of timber and deals being brought down by cars.

The demand for lumber for local building purposes is not brisk at present. While there are considerable building operations going on, particularly large constructions, reinforced concrete is being largely employed in flooring as well as in the concrete walls, etc.

The trade in pulpwood is very large, and almost daily steam barges with pulpwood piled high above their decks pass by here en route to Ontario and United States ports on the upper lakes. This comes from places in the lower St. Lawrence as far east as the Island of Anticosti. In addition to the above a considerable quantity is shipped from this port to the west.

The price of pulpwood is now quoted as follows at Quebec: hand peeled, $7.50 per cord; machine peeled, $9.25. The former is four feet in length, the latter two feet. While the supply along the banks of the lower St. Lawrence is said to be enormous, the demand keeps steadily up and prices are firm.

Montreal Transatlantic Shipments Increasing

Montreal, Aug. 10th. (Special correspondence of the Canada Lumberman).—There is practically no change to report in market conditions. Business, both wholesale and retail, is good, without any great outstanding feature. Shingles, clapboards, and ties are higher in price, and values generally are well maintained. It is possible there may be a lull in the building boom, for although the figures of the permits show an increase over those of last year, some operations are being held up by an order of the Controllers prohibiting the issue of permits until streets have been surveyed by the Department. This work is three months in arrears, but it is probable that more surveyors will be engaged. For last month, the building permits totalled $1,748,550, an increase of $690,789, while for the seven months the total was $9,816,543, a gain of $1,550,645.

There is a moderate amount of business passing with the United States, the general conditions showing an improvement over those of last year. Canal boats to New York are more plentiful than they were. Freights to Boston have advanced and boats are scarce, with the result that trade to that port is hampered.

Shipments to Great Britain and the European ports are being rushed ahead as far as possible, on the fear that there will be a severe tie-up of cars in the fall. The demand from the other side is good, and so far the exports, especially of pine, are ahead of those of last year.

News Print Mills Rushed With Orders

With reference to pulp and paper, the news print mills claim that they have more business than they can conveniently handle. In ground wood there are larger exports to the United States than in any previous period during the last six months, and prices are up one dollar per ton. Owing to the hot weather, the pulp working streams in the United States have been reduced one-third of their capacity. There is very little Crown wood in stock at the Canadian mills and pulp makers on this side fear that they will not have sufficient pulp to cover the United States requirements from this time until the late fall.

As to the proposed changes in the legislation affecting news print and sulphite pulp in the United States, it may be pointed out that the Senate and the Republican minority in Congress endeavored, with the assistance of other interests, to cancel the reciprocity measure now on the United States Statute Book, and with it the clauses referring to sulphite pulp and paper duties. They proposed to cut in two the sulphite pulp duties and to reduce to $2 per ton the duty on news paper and on wood cut from Crown lands. The Mann committee three years ago recommended a tariff of $2 per ton of news paper, and Mr. Mann is now one of the framers of the proposed measure, which was attached to the Excise Bill. When the measure reached Congress, the Democrats refused to ratify it, and after conference it was finally rejected.

Commenting on these events, a prominent authority on pulp and paper states that in his view the action of the Senate indicates that the penalties placed upon sulphite and news paper manufactured from Crown lands wood in Canada have not had the desired effect of compelling the Canadian provinces to remove the embargo put upon Government lands wood, and that the sentiment among high protectionists in the United States is to still further remove the barriers now existing against Canadian sulphite and news print imported into that country.

Firm Prices at St. John—Labor Scarce

St. John, N.B., Aug. 10th; (Special correspondence of the Canada Lumberman): The prices of all wood goods at St. John remain just the same as in my last letter, business is good, and the only drawback experienced by the mill operators in this section is the question of labor, which is at present very scarce for the better class. Of course for ordinary work there is a good supply. The first steamer from London to this port that we have had in over six weeks has just arrived, and it is said that the only space left for lumber was about 300 standards, or comparatively no room at all. This is caused by the strike of the London dock workers which has just been settled. No decrease in freights has been reported to date, and very little tonnage is available. Freights to New York yet remain at $4.00 on long lumber, with 80 cts. on laths. About 25 vessels are now at this port loading and loaded, all for American ports, and are largely tern schooners carrying from 300 to 500 M. superficial ft. Nearly all the laths have been shipped from St. John and the quantity left on wharves at mills is light.

Local business continues to be good and large quantities of refuse lumber are going into consumption.

Logs are not moving very rapidly out of the booms at Fredericton owing to the scarcity of men, many of them departing for the hay fields at this time of year. The boom company have rafted to August 1st about 60 million superficial feet and expect to be done rafting by October 1st. The last drive of 1 million of logs have reached the boom limits this week. This about completes the season's work except for two to three million logs which are being held in what is called Six Mile Island booms just about Grand Falls. This will be sluiced over if the water rises sufficient to make clean driving to booms at Fredericton.

About half of the mills at St. John are sawing for the American market which keeps strong and prices are still where they were a month ago. It is the opinion of the mill men that after September first they will have a better American market.

It is understood that one mill on the river has disposed of its entire cut of English deals to W. M. Mackay at near last season's prices but this has not been verified by the seller.

Shingles are very firm and almost impossible to get, especially for local use. In fact a good many western shingles are being imported into St. John also clapboards, largely from British Columbia. The cedar shingle market is very apt to remain firm as there is a great shortage in the cut of cedar logs.

The St. John River Log Driving Company met on Aug. 5th and sold the unmarked logs which had come into the company's booms. The lumber amounted to 745 M. spruce, 73 M. pine, 74 M. cedar, 43 M. hemlock. The price of the spruce was lower than last year.

The buyers were as follows: York & Sunbury Milling Co., St. Mary's, spruce, $13.40; Murray & Gregory, Ltd., pine, $10.50; cedar, $11; Hilyard Bros., hemlock, $9.25.

The prices realized last year were as follows: pine, $14.50; spruce $10.25; cedar, $9.40, and hemlock, $7.50.

Liverpool Market Report

Messrs. Smith & Tyrer, Ltd., of 26 Chapel street, Liverpool, report on the timber trade for the month of July 1912 as follows:

(Continued on page 58)

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The BEST for the CAMP, the MINE and the HOME.

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Originators of Condensed Milk and Largest Manufacturers of Milk Products in the World.

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Montreal

EDGINGS

Ontario

Mr. Benjamin Mundell, Erin, Ont., is advertising his planing mill and building business for sale.

A fire caused damage to the planing mill, lumber and coal yard of Mr. L. E. Hall, Port Hope, Ont.

The Naylor-Osborne Co. Ltd.. Essex, Ont., have absorbed the business of the Naylor Lumber Company.

John J. Hayne, Brigden, Ont., lumber dealer and manufacturer of cooperage stock suffered loss by fire recently.

The St. Lawrence Paper Mills, Limited, of Mille Roches, Ont., have ordered a centrifugal pump from the Smart-Turner Machine Company, Limited, of Hamilton, Ont.

Fire caused damage to the extent of from $20,000 to $25,000 to the sash and door factory owned by Messrs. Peck & Wills at Belleville, Ont. The cause of the fire is unknown.

The Long Lumber Company, 28 James street south, Hamilton, contemplate erecting a large box factory on Bailey street with a lumber yard in connection. The sum of $150,000 is to be expended on buildings and machinery.

Crockett & Tharle have formed a partnership to carry on a contract they have secured for buildings, station and other work on the line of the Transcontinental Railway, as well as carrying on the timber and tie business, with head office at Fort William, Ontario.

The Stone Lumber Company, Limited, with mills at Marksville, St. Joseph Island, Ont., and at Day Mills near Thessalon, Ont., are building a railroad from their mill at Marksville to their timber limits, a distance of about eight miles, so that this winter their logs will be conveyed to the mill over their own road.

It is reported that the Cornwall mill of the Toronto Paper Company will shortly pass into new hands—the same interests that control the Cornwall Paper Mills at Mille Roches, the Barber Mills at Georgetown and the Montrose Mills at Thorold. Mr. Courtney, the manager of the mills, is leaving Cornwall shortly and will enter a company that proposes building a new mill at Beauharnois, Que. This mill will manufacture high grade papers, such as are now made in Canada only by the Roland Mill. If the deal goes through the mills at Cornwall will be enlarged immediately.

The McAuliffe-Davis Lumber Company, Ottawa, Ont., report that they have experienced a very heavy increase in business and recently found it necessary to increase their handling capacity. They have accordingly purchased a block of land on the southern extremity of the city, comprising about 85 acres, served by four railroads, the C.P.R., G.T.R., O. & N.Y., and the C.N.R. It is the intention at that point to construct a large planing mill built on the most modern plan, together with numerous workingmen's houses in which to house the company's employees. The building will be of the most modern type as well as the machinery. Upon its completion the company will be in a position to supply lumber in standard grades from stock and to handle any amount required of transit mill work for shipment over the railroads named and their connections.

Eastern Canada

Messrs. Hamelin & Forget have registered a sash and door factory at Montreal.

The Grier Timber Company, Limited, has been registered at Montreal. Capital $100,000.

Ouellet & Dionne's saw and planing mill, St. Onesime, Que., was recently destroyed by fire.

The Campbell-MacLaurin Lumber Company, Ltd., Montreal, have increased their capital from $100,000 to $250,000.

The Beloeil Lumber Company, Limited, has been incorporated. The capital is $100,000, and the head office is at Beloeil, P.Q.

The Howard Smith Paper Mills, Limited, Montreal, have taken over the business of the Howard Smith Paper Company, Limited. Capital $1,000,000.

Mr. Hunting. of Massawippi, Que., will erect a sash and door factory at Ayers Cliff, Que. The council have granted him a site and exemption from taxes for ten years.

About two million feet of lumber belonging to the St. John Lumber Company, Van Buren, Me., has been rafted at Fredericton, N.B. Owing to the booms at Van Buren not being in position, this lumber came down with the ice in the spring.

Reports from St. John, N.B., state that a new pulp and paper mill is likely to be erected at Grand Falls, N.B. According to the report those interested include Sir Wm. Van Horne, Montreal, Hon. Wm. Pugsley, Col. H. H. MacLean, M.P., and H. A. Powell, K.C., of St. John, N.B.

The Quebec Labrador Pulp and Lumber Company Limited has been incorporated with a capital stock of $300.000 to secure timber limits and manufacture and deal in timber and lumber and all kinds of wood products with head office at Montreal. The incorporators are R. Chenevert, Advocate; T. D. Broker and P. Gregory, all of Montreal.

La Compagnie de Progress de Saint Flavien Limitee has been incorporated with a capital of $49,900 to acquire lumber and saw mills and carry on a general lumber business with head office at St. Flavien, P.Q. The incorporators are L. Ratte, J. Paquet, farmers, and U. Bernard, accountant, all of Saint Flavien.

It is reported that Mr. Gilbert Desrosiers, manufacturer of doors and windows, 135 Lafrance avenue, Montreal, has surrendered his property for the benefit of creditors. The assets consist of the factory premises, with wood, machinery, manufactured articles and stock in trade, and the liabilities total in the neighborhood of $25,000, the principal creditors being: Oliva

Baillargeon, $6,000; Bank of Hochelaga, $4,200; Madame Anby, $2,000; Geo. Goodfellow, $1,702; G. W. Faust & Co., Ltd., $3,570. A number of employees are amongst the claimants.

On July 30th the mill of the Tourville Lumber Mills Company, at Louiseville, P.Q., was practically destroyed by fire. The boiler room and engines were saved. The loss is estimated at $45,000, the insurance being $35,000.

The Dominion Iron and Steel Company are considering the erection of a cooperage plant in connection with their nail mill at Sydney, N.S. H. A. Butz is the engineer. It is expected that the company will shortly be in the market for machinery for the cooperage plant

The Tourville Lumber Company's mill at Louisville, Que., was recently destroyed by fire. The loss is estimated at $85,000. The company will rebuild the mill and will require new machinery for both steam and water power. The head office of the company is at 107 St. James street, Montreal.

The Laurentide Company, Ltd., Grand Mere, P.Q., have purchased a large tract of territory, consisting of 398 miles of forest, from the Calvin and Power Companies, on the Upper St. Maurice river. The Laurentide Company already own over 400 miles of territory in the district. An addition to the sulphite mill is being erected by the directors.

Sealed tenders are being received by the Secretary of the Department of Public Works, Ottawa, until August 26th, for the delivery of creosoted timber. Specifications and form of contract may be seen at the department or at the offices of Geoffrey Stead, District Engineer, Chatham, N.B.; E. T. P. Shewan, District Engineer, St. John, N.B., C.E.; W. Dowell, District Engineer, Halifax, N.S. and G. A. Bernasconi, District Engineer, North Sydney, N.S.

Western Canada

The Cottonwood Lumber Company, Limited, has been incorporated at Vancouver, with a capital of $250,000

The City Lumber Company, Limited, has been incorporated at Vancouver, with a capital of $50,000

The Sayward timber limit, of 2,400 acres, near Creston, B.C., will, it is said, be put on the market at an early date.

The F. & S. Lumber and Trading Company has been incorporated at Battle Lake, Alta., with a capital of $10,000.

The Red Wing Lumber & Supply Company, Limited, has been incorporated at Victoria, B.C., with a capital of $30,000.

The French Canadian Timber, Limited, with a capital of $1,000,000, has been incorporated, and the head office is at Vancouver.

The U. S. Pacific Lumber & Timber Company, Limited, has been incorporated with a capital of $100,000. The head office is at Vancouver, B. C.

The Seattle Cedar Lumber Manufacturing Company, whose head offices are at Seattle, Wash., have registered as a limited company with provincial office in Victoria, B.C.

The Western Canadian Lumber & Fuel Company, Limited, Vancouver, B.C., is applying for permission to change its name to the Coast Lumber & Fuel Company, Limited.

J. W. Foster, Limited, has been incorporated with a capital of $75,000. The head office is at Vancouver, B.C., and the company will carry on business as timber merchants, etc.

The Rock Creek Land Company, Limited, has been incorporated with a capital of $500,000, to carry on business as timber merchants, sawmill owners, etc. Head office, Midway, B.C.

The Lovett Lumber Company's mill at Westley, B.C., has now been completed, and operations will be started as soon as the first shipment of logs arrive from the Columbia River.

The New Wellington Coal & Coke Company, Limited, has been incorporated, with a capital of $1,000,000. The head office is at Vancouver, B.C., and the company will engage in a general lumbering business.

Messrs. Scholtz, of Seattle, Wash., have purchased about five acres of land on the west side of the Stave River, near Ruskin, B.C., and will erect a shingle and sawmill. Eight or nine machines are already installed and this number will be increased to twenty-four.

The Colonial Securities Company has been incorporated with a capital of $100,000 to carry on a general mining, ranching and lumbering business with head office at Winnipeg. The incorporators are J. T. McKaig, banker; Dr. C. R. Dodderidge and Lawrence Rosewald, broker, all of Winnipeg.

The Saint Andrew's Investments Limited have been incorporated with a capital stock of $100,000 to carry on business as a mining, ranching and lumbering company with head office at Winnipeg. The incorporators are A. E. Hoskin, barrister; C. W. N. Kennedy, agent, and J. D. Morice, barrister, all of Winnipeg.

The Howard Vulcanizing Process

Mr. J. Cameron Jenkins, who was last year sent by Columbia University to investigate the Howard Lumber Vulcanizing Process at the Toronto plant of the company, has reported favorably on the system. Mr. Jenkins says that this process will bring into use woods which up to the present time could not be made use of commercially, owing to the fact that other processes have not been able to dry them without either warping or twisting, or they have been very short lived in their durability.

By this process lumber may be taken green from the saw and dried perfectly in twenty-four hours. The loss in weight runs as high as 50 per cent., with an average around 35 per cent. Shrinking, swelling and warping are practically eliminated.

The cost of the process where steam is not a direct charge, as is generally the case at saw mills, resolves itself into the cost of handling the lumber, plus the cost of a man to look after the plant, which amounts to about the same as it would cost to stack the lumber in the yard and the interest on the investment while air seasoning.

Mr. Jenkins states that he is almost certain that this process will enhance the value of the grade over air seasoning from 10 to 20 per cent. In other words much lumber which is degraded on account of air seasoning will be saved to a high grade.

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Liverpool and Manchester Stocks

Messrs. H. N. Lightburne & Co., Liverpool, through their representatives, Messrs. John E. Moore & Co., Ltd., St. John, N.B., give the timber market reports for July 1912, as follows:

Liverpool

	Import		Consumption		Stock	
	1911	1912	1911	1912	1911	1912
			Stds.			
N.B. & N.S. Spruce & Pine	4,960	2,730	3,500	4,750	7,960	9,590
			Loads			
Birch Logs	40	940	340	560	1,040	1,620
			Stds.			
Birch Planks	327	449	236	552	291	824

Manchester

			Stds.			
Spruce	7,910	6,270	3,380	6,650	13,860	11,260
			Loads			
Birch Logs	340	600	240	420	400	900
			Stds.			
Birch Planks	30	127	55	97	151	594

Stocks in Manchester and Liverpool Combined

	1908	1909	1910	1911	1912
			Spruce		
Manchester	14,050	16,480	9,970	13,860	11,260
Liverpool	7,000	8,880	7,740	7,960	9,590
Standards	21,050	25,360	17,710	21,820	20,850
			Birch Logs		
Manchester	440	300	80	400	900
Liverpool	900	1,100	340	1,040	1,620
Loads	1,340	1,400	420	1,440	2,520
			Birch Planks		
Manchester	485	1,134	800	151	594
Liverpool	442	624	333	291	824
Standards	927	1,758	1,133	442	1,418

Quebec Timber Receipts

The following comparative statement of timber, measured and culled to date, is furnished by the Supervisor of Cullers, Quebec, P.Q.

	1910	1911	1912
	Cubic Ft.	Cubic Ft.	Cubic Ft.
Waney White Pine	438,360	438,920	685,320
White Pine	8,080	1,720	80
Red Pine	21,880	6,360	1,320
Oak	67,040	44,160	10,280
Elm	246,800	210,000	274,880
Ash	1,360	80	120
Birch and Maple	40,680	58,800	38,640

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This is not Treasury stock as the Company is not offering any of its shares.

This Company owns the Canadian Rights for the

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(Incorporated under the Dominion Companies Act.)

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(ALL ORDINARY SHARES)

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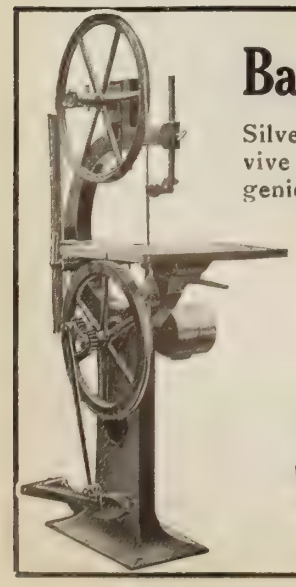

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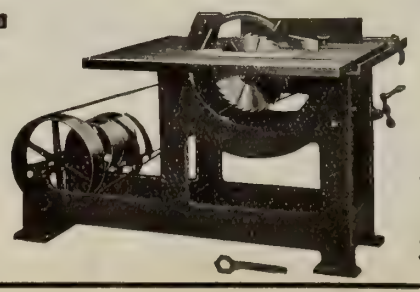

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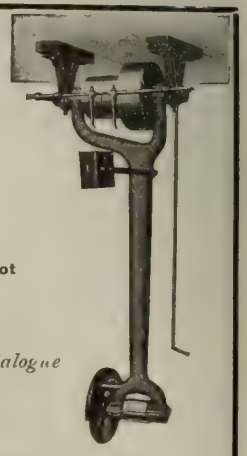

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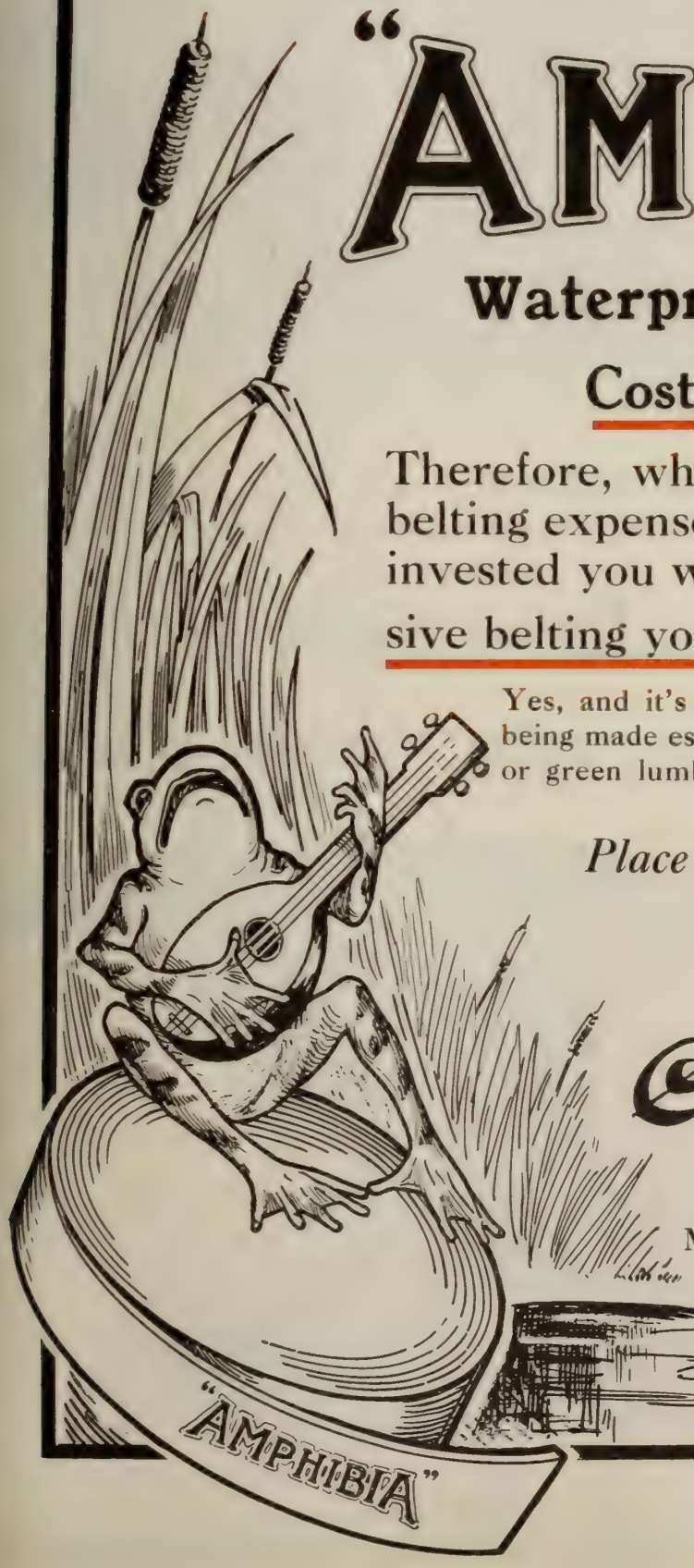

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Sadler & Haworth

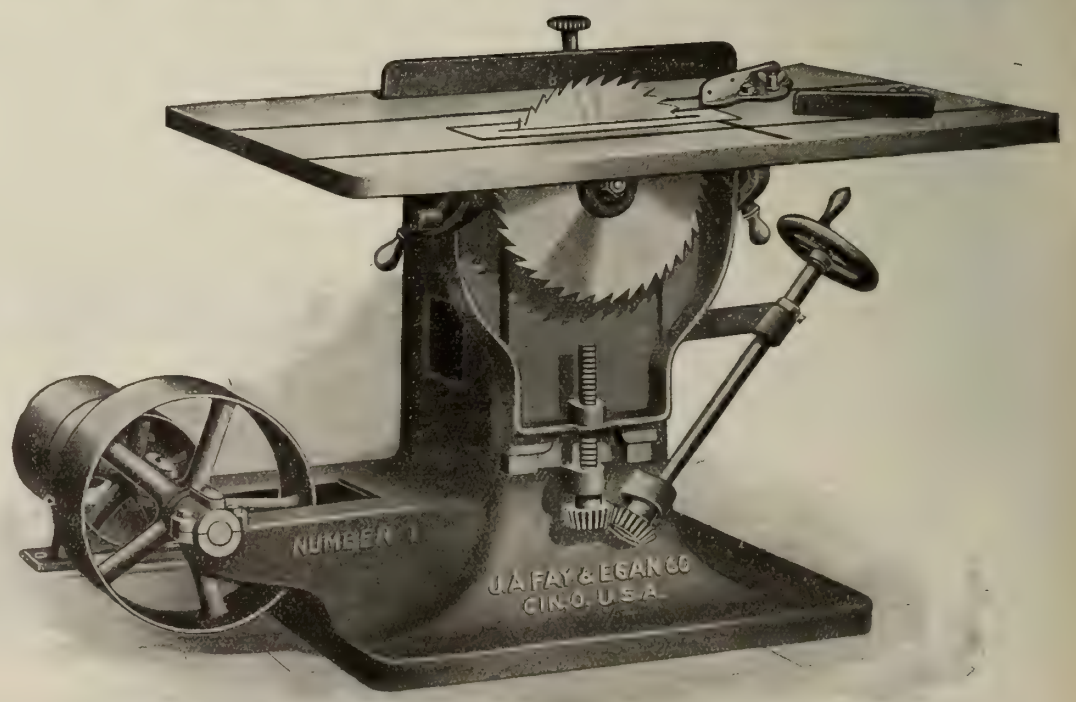
Tanners and Manufacturers

For Over 35 Years the Makers of the Best Leather Belts

Montreal Toronto St. John, N.B. Winnipeg Vancouver

TO INSURE SATISFACTION—STATE WHERE BELT IS TO RUN

Do you know you can make money by putting a Fay-Egan "Lightning" Variety Saw into your shop?



Every Woodworking shop should have a variety saw—there is really no end to the many kinds of work that can be done on one of these machines—you'll be surprised how quickly and cheaply you will be able to do many jobs now costing you good time and money if you do them on a variety saw. The cost of installation and upkeep is low. We'll be glad to tell you more about Fay-Egan Variety Saws—write us.

J. A. Fay & Egan Co.

Manufacturers of Woodworking Machinery

The "LIGHTNING" LINE

465-485 W. Front Street - CINCINNATI, OHIO.

The Importance of Efficient Mill Machinery

In Millwork, where every portion of the equipment has to undergo the severest treatment with unusually hard conditions only the best machinery will serve. No mill can be run at a profit with inferior equipment. This is an expression of the opinion of men of wide and varied experience in the business.

P. Payette's Improved Mill Machinery, is built to stand all the strain and hard usage of mill work. This machinery is of the special Payette design and embodies many improvements, which add considerably to the efficiency of mill equipment.

The New Patent Saw Mill Dog which operates in soft or hardwood timber of any kind will do good even work in summer or winter with perfect safety.

Payette's Improved Set Works will set even thickness of lumber in all class of timber and will set any size log with perfect ease, Can be changed instantly so as to make either thick or thin lumber and can be put on any make of carriage.

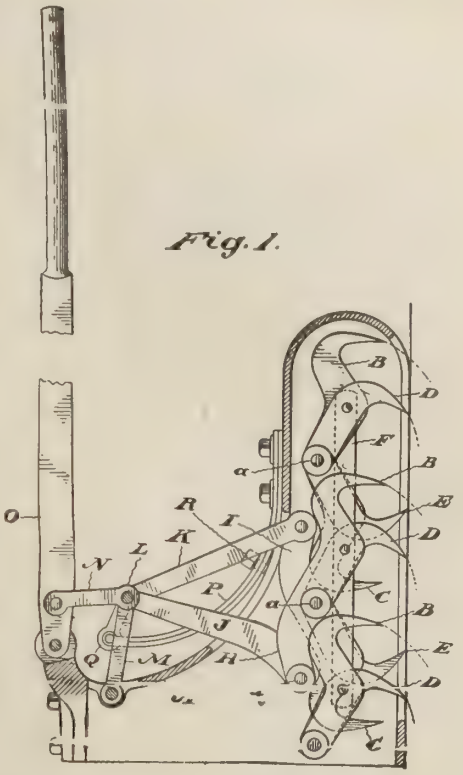


Fig. 1.

We want to prove to you the advantage of this set works in your mill and we are prepared to demonstrate its efficiency and superiority. Full information sent on application. Ask for our booklet on set works.

P. Payette & Co. Engineers & Machinists **Penetanguishene, Ont.**

Buy Guaranteed Chisel Tooth Saws

You need have no doubt about the quality when you buy

SMITH'S CHISEL TOOTH SAWS

No. 2½ Tooth

They are backed by a guarantee as to their durability and will stand up better than any saw made. The shanks are made from a special steel, and we use only the GENUINE "HOE" BITS which are uniform and perfectly true.

Made in several sizes but the following are specially recommended.

NO. 2½ TOOTH—Designed for heavy feeds. Suitable for mills where independent steam feeds are employed, and also for edger saws.

NO. 3—Principally for hardwoods. The best saw where both soft and hard woods are to be cut.

NO. 4—Specially recommended for British Columbia, and for cutting soft, pitchy lumber where more throat room is required.

No. 3 Tooth

Smith's inserted and solid Tooth Saws are specified by the Largest Canadian Manufacturers of Mill Machinery.

R. H. Smith Company Limited St. Catharines, Ontario

CURRENT LUMBER PRCIES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$60 00	65 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better..	67 00	72 00
1½-in. No. 2 C & B	50 00	52 00
2-in. No. 2 cuts and better ..	56 00	60 00
1½-in. No. 1, 2 and 3 Cuts ..	48 00	50 00
2-in. No. 1, 2 and 3 Cuts ...	48 00	50 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	23 00	25 00
1 x 6 common and dressing..	26 00	28 00
1 x 8 common and dressing ..	27 00	29 00
1 x 10 common and dressing ..	30 00	32 00
1 x 12 common and dressing..	39 00	41 00
1x10 and 12 mill cull stocks ..	21 00	22 00
1-in. mill cull sidings		18 50
2 x 10 common	27 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	22 50	23 50
1 x 10 inch box and common.	24 00	25 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	24 00	26 00
1-in. mill run shorts		18 00
1-in. dead cull sidings		14 00
1¼-in. flooring		28 00
1-in. mill run Norway		22 00
2-in. mill run Norway		25 00
Norway, c and cf 1-in.	33 00	34 00
Norway, c and cf 1½-in.	35 00	38 00
Norway, c and cf 2-in.	33 00	35 00
Spruce mill run	21 00	22 00
Spruce mill culls	15 00	16 00
Clear in. B.C. cedar, kiln dried	55 50	65 50
Douglas Fir		
Dimension Timber up to 32 feet:		
8, 10x10, 10x12, 1x14, 12x12, 12x014, 14x14, 14x16.....		34 00
8x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 14x18, 16x18 18x18, and 20x20		34 50
6x14, 8x14, 12x18, 18x20		35 00
6x16, 8x16, 10x18, 12r20, 14x20, anh 16x20		35 00
10 x 20		36 00
6 x 18, 8 x 18		36 50
6 x 20, 8 x 20		37 50
Lengths over 32 ft. take the following advances: 33 to 35 ft., 50c.; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5.		
Fir flooring, eoge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		45 10
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 10
1½-in. No. 1 4-ft. pine lath..		4 50
1½-in. No. 2 4-ft. lath		4 00
1½-in. 32-in. pine		1 60
1½-in. No. 1 4-ft. hemlock lath		3 75
1½-in. mill run hemlock lath.		3 50
X pine or cedar shingles		1 05
XXpine or cedar shingles ...		2 25
XXX pine or cedar shingles ..		3 20
XX B. C. cedar shingles ...		2 30
XXX 6 butts to 2-in.		3 30
XXXX 6 to 23-16-in.		3 52
XXXXX		3 75
Hemlock No. 1:		
1x4 & 5-in. x 9 to 16 ft.		16 50
1 x 6 6-in. x 9 to 16 ft.		19 50
1 x 8-in. x 9 to 61 ft.		20 50
1 x 10 and 12 in. x 9 to 16 ft.		21 00
1x7, 9 and 11 in. x 9 to 16 ft.		19 00
1-in. No. 2, 6-ft. to 16-ft. 2x4 to 12-in., 6-ft. to 16-ft.		14 50
2x4 to 12-in., 12 and 14 ft. ..		19 50
2x4 to 12-in., 18 ft.		22 00
2x4 to 12-in. 20 ft.		23 50
2 x 4 to 12-in., 22 ft.		25 50
2 x 4 to 12-in., 24 ft.		28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		15 50

Hardwoods—Per M. Feet, Car Lots

Ash white, 1sts and 2nds, 1½ and 2-in.	55 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	48 00
Ash, brown, common and better	37 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	55 00
Birch, 1sts and 2nds, 4/4	35 00
Birch, No. 1, com. and bet., 4/4	30 00
Birch, 1sts and 2nds, 6/4 and 8/4 ..	38 00
Birch, 1st and 2nds, 10/4 and 12/4 ..	42 00
Birch, 1sts and 2nds, 16/4	44 00
Basswood, 1sts and 2nds, 4/4	38 00
Basswood, No. 1, com. and bet., 4/4.	30 00
Basswood, No. 2 and 3, common ...	17 00
Basswood, 6/4 and 8/4, 1sts and 2nds	40 00
Basswood, 6/4 and 8/4, com. & bet...	37 00
Basswood, No. 2 common and better.	25 50
Soft elm, 1sts and 2nds, 4/4	35 00
Soft elm, No. 1 com. and bet., 4/4 ..	29 00
Soft elm, No. 2 and 3, common	16 00
Soft elm, 6/4 and 8/4 1 and 2	38 00
Soft elm, 3-in. 1sts and 2nds	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4 ..	50 00
Rock elm, No. 2 com. & bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4 31	00
Soft maple, com. and better, 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	34 00
Hard maple, 1sts and 2nds, 4/4	34 00
Hard maple, common and better, 4/4.	27 00
Hard maple, 12/4 & 16/4, 1sts & 2nds.	43 00
Red oak, plain, 1sts & 2nds, 4/4...	55 00
Red oak, plain, 1sts & 2nds, 6/4 & 8/4	60 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	65 00
White oak, plain, 1sts and 2nds, 4/4..	55 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	60 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	70 00
White oak, ¼ cut, 1sts & 2nds, 4/4..	83 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	87 00
White oak, ¼ cut No. 1 common ...	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up $53 00		55 00
1¼-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up ..	40 00	45 00
Pine good strips:		
1-in.	40 00	44 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	50 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	38 00	40 00
1-in. x 4-in. to 6-in.	30 00	35 00
1¼-in. and 1½-in.	45 00	50 00
2-in.	48 00	52 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings ..	33 00	35 00
Pine, No. 1 dressing strips ..	26 00	31 00
Pine, No. 1 dressing shorts ..	22 00	26 00
Pine. 8 s.c. and better, 12 ft. to 16 ft.	23 00	24 00
Pine, 7 up s. c. siding 1-in....	22 00	25 00
Pine s. c. sidings 1½ & 2-in...	26 00	30 00
Pine, s. c. strips 1-in.	17 00	19 50
1¼, 1½ and 2-in.	22 00	24 00
Pine, s.c. shorts, 1 x 4	20 00	21 00
Pine, s.c. and bet. 1x5	21 00	22 00
Pine, s.c. and bet. 1x6	23 50	25 00
Pine, box boards:		
1"x4" and up 6'-11'	13 00	14 00
1"x3" to 6", 12'-16'	15 00	16 00
1"x7" and up 12'-16' 16	00	17 00
Pine shorts 6'-11' 1"x10"....	20 00	21 00
1x8 and 9 No. 1 barn	25 00	27 00
O. culls r & w p	10 00	12 00
Red Pine log run, mill culls out, 1-in.	14 00	16 00
mill culls out, 1¼-in.	16 00	18 00
mill culls out, 1½-in.	17 00	19 00
Mill run Spruce:		
1"x4" and up, 6'-11	14 00	15 00
1"x4" and up, 12'-16'	16 00	17 50
1"x9"-10", & up, 12'-16'...	18 00	19 00
1¼"x7" 8-9" & up, 12'-16'	18 00	20 00
1¼"x10" and up, 12'-16' ..19	00	20 00
1½" & 2"x12" & up, 12'-16'	24 00	25 00
Spruce 1-in. clear (fine dressing and B)	24 00	27 00
Hemlock 1-in. cull	10 00	12 00
Hemlock 1-in. log run	13 00	14 50
Hemlock 2x4, 6, 8, 10, 12/16'	14 00	16 50
Tamarac	13 00	15 00
Basswood log run, dead culls out	20 00	22 00
Basswood log run mill culls out	24 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
Pine, s.c. and better, 1x7	21 50	23 00
Pine, sc. and better, 1x8 23	00	25 00
Pine, s.c. and better, 1x9	23 00	25 00
Pine, s.c. and better, 1x10 ...	25 50	27 00
1 x 10 No. 1 barn	30 00	33 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	20 00	22 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	14 00	15 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	11 00	13 00
Lath per M:		
No. 1 white pine 1⅛-in. x 4-ft.	3 75	4 00
No. 2 White Pine	3 00	3 25
Mill run white pine	3 25	3 50
Spruce, mill run 1½-in.	2 75	3 00
Red pine mill run	2 75	3 00
Tamarac mill run	1 25	2 00
Basswood, mill run	2 00	2 50
Hemlock, mill run	1 75	2 25
32-in. lath	1 25	1 75
Pine Shingles		
xxxx, 18-in.	3 50	4 00
Clear butt 18-in.	2 50	3 25
xx, ...	1 50	1 75
White Clear Shingles:		
xxxx, 18-in.	4 00	4 25
Clear butt, 18-in.	2 50	3 00
18-in. xx	1 60	1 85
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

	cts.	
First class Ottawa waney, 18-in. average, according to lineal	85	90

Oak—Michigan and Ohio

By the dram, according to average and quality	62	67

Elm

By the dram, according to average and quality, 40 to 45 feet	80	83
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash

13 inches and up, according to average and quality 25 30
Average 16 inch 30 40

Birch

14 inch	18	20
15 inch	22	24
16 inch	26	28
18 inch	32	30

Quebec Spruce Deals

	Per M.	
12 feet and up x 3 x 9 and up	18 00	19 00
Oddments	15 00	16 00
Boards, 1 and 2 in.	15 00	16 00

Birch Planks

1 to 4 in.	16 00	17 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	54 00
1 in., 8 in. and up wide	67 00
1¼ and 1½ in. and up wide	69 00
2 in. and up wide	72 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	67 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	47 00
1¼ in., 8-in. and up wide	57 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½-in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	48 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide...	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	22 00
1-in. x 5-in.	24 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	30 00
1-in. x 12-in.	35 00
1-in. x 13-in. and up	35 00
1¼, 1½ and 2-in.	32 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch 21	00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	20 00	22 00
No. 2, 1¼, 1½, 2-in.	17 00	21 00

Mill Culls

Mill run culls, 1-in.	16 00
1, 1¼, 1½ and 2-in.	18 00
No. 2 14	00 15 00

Lath

No. 1, 32-in. pine	1 50
No. 2, 48-in. pine	3 75
No. 3, 48-in. pine	3 00
No. 1, 48-in. pine	4 25
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft	8 ft	10 ft	14x16 ft
2 x 4	14 00	17 00	20 50	18 50
2 x 6	16 50	17 00	20 50	18 50
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch $18	50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12 .....'.....	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Dimensions, S. 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
.....	27 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine mixed widths	20 00
No. 4 common pine, mixed widths ..	14 50
No. 5 common pine, mixed widths ..	10 00

SHINGLES

XXX B. C. Cedar	$2 90
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

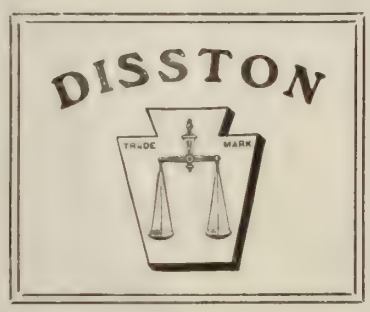
BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00

(Continued on page 68)



The Brand that stands for Highest Efficiency. Has maintained its Prestige for Seventy-two years.

SAWS
TOOLS
AND
FILES

HENRY DISSTON & SONS

INCORPORATED

Keystone Saw, Tool, Steel, and File Works

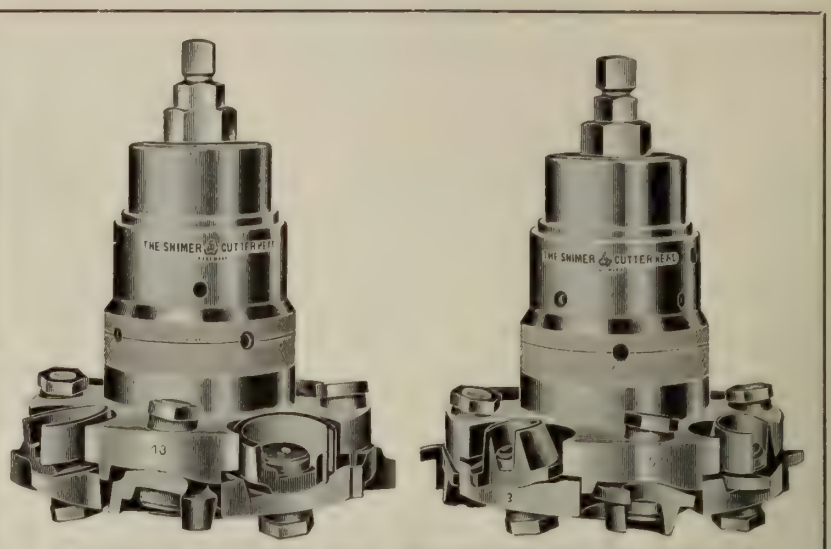
PHILADELPHIA, PA.

BRANCH HOUSES { Chicago, Boston, Cincinnati, New Orleans, Memphis, San Francisco, Seattle, Portland, Spokane, Toronto, Vancouver

You'll Find It Interesting

to note the different processes in your mill—to measure the *time* given to productive work and that taken in getting ready. You'll be surprised at the amount of time that is needlessly wasted in filing straight cutters to shape and in touching up the shape after each sharpening—in making adjustments to suit the different kinds and conditions of lumber.

The Shimer Cutter Head eliminates this waste of time and gives it to productive work. It also insures accuracy, less spoiled material and inspires the men with the desire to do quicker work, because they can do a good job without so much care and attention to details.



The "Shimer Limited" Cutter Heads, with Expansion. Fig. 627 and Fig. 628.

For the High Speed Matcher

These heads have a chucking device which self-centres them on the spindle and grips firmly thereto when the device is drawn up, overcoming the objectionable set screw as a means of fastening the Head to the spindle. It is reliable and practically perfect in results.

The Bits carry a larger areal surface and the Bit chambers are of greater depth to compensate for the new acute angle given to the Bits for greater relief to the parts coming into contact with the lumber.

They are simple and strong throughout, have no delicate parts to break down or get out of order, and are safe and efficient tools for matching flooring, etc., at high speed.

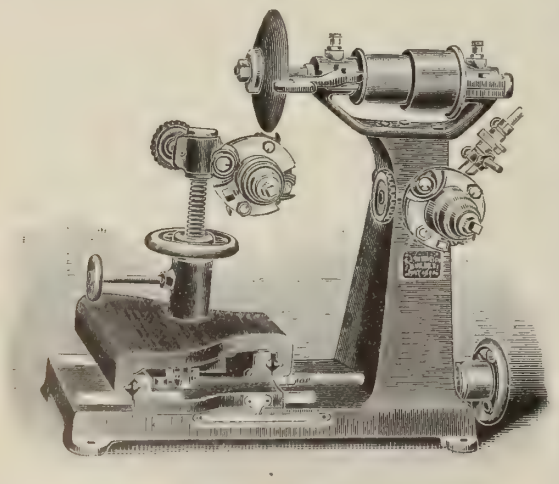
Price, net, for Flooring, $72.46 the set complete.

The Long Life Circular Bits on Shimer Cutter Heads never change when they are sharpened, and they are easily and quickly set by a guage or tracker. The bit seats having a duplex incline, pitch the Bits so that only the edges come into contact with the lumber, causing the diamond shaped point of the Bit to lead into the wood, making on easy shear or shave cut, one that will stand fast feeds without tearing out knots and splinters.

Each type of Shimer Cutter Head has been developed along the lines of durability, reliability and convenience of operation. They increase the output of any planing mill by increasing the efficiency of the men and machines.

When you buy Cutter Heads look for the SIGN OF QUALITY—our Trade Mark, "The Shimer Cutter Head," stamped on each and every Head we send out. It is not only a guarantee of quality, but a sign of the faith we have in our tools—a faith that causes us to go to the expense of making Cutter Heads to fit your machine and cut your patterns and then send them to you on 30 days trial.

We would like to have you meet us half way by sending us specifications for such Heads as you can use with profit. Put the Shimer Cutter Heads to the test. Convince yourself that they will save you money, time and labor. Do it now!



Bit Grinding Machines

For grinding Bits tempered too hard to file, and to lighten and hasten the work in the filing room, we make two styles of Grinding Machines.

No. 1 is a strong and complete machine with every needed adjustment. Price, net, with countershaft, f.o.b. Galt, Ont,, $104.00.

No. 2 machine is lighter, yet sufficiently strong to meet the average need. Price, complete, $45.50 net, f.o.b. Galt, Ontario.

Panel Raiser Heads

For $18.20 you can buy a Panel Raiser Head which will work nicely on any panel raising machine with vertical spindles. It carries a heavy shearing cut and works smoothly across end of panel as well as with the grain.

Box Board Matcher Heads

The Shimer Cutter Heads for Box Board Matching will make a uniform cut and a close fit in every instance, as well after years of use as when the Bits are new. There is no friction upon the Bits, therefore no loss of power, no waste of material. The Bits can be expanded for thicker material, with corresponding change in the thickness of the tongue and groove.
Price for two Cutter Heads with 4 Bits each, complete to match ⅜ to ½ in., $29.15. We also furnish when desired a Yoke Mandrel with self-oiling boxes, boxed f.o.b. Galt, Ontario, for $11.05.

Thin Steel Knives

made from our Bedee Brand of Steel, for planing and surfacing lumber, are recommended by users as the best that can be procured. This special self-hardening steel under our treatment is very dense in grain—strong and tenacious—well calculated to withstand the knots as well as the fibrous cross-grain which is characteristic of the lumber of some localities. They hold an edge from one to five days at a single sharpening, according to the class of lumber they are used upon. We can furnish them in any length or thickness. Write us about your requirements.

Wood Forming Cutters

We manufacture Special Cutters of any shape and size desired after the patterns of our reversible and One-Way Cutters. Let us have your specifications. For odd work not found in our catalogue send a wood sample or drawing.

Samuel J. Shimer & Sons

Milton, Pa., U.S.A. Galt, Ontario, Can.

ENGINES and BOILERS

OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

We cater specially to the lumbering industries

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LONDON, CANADA

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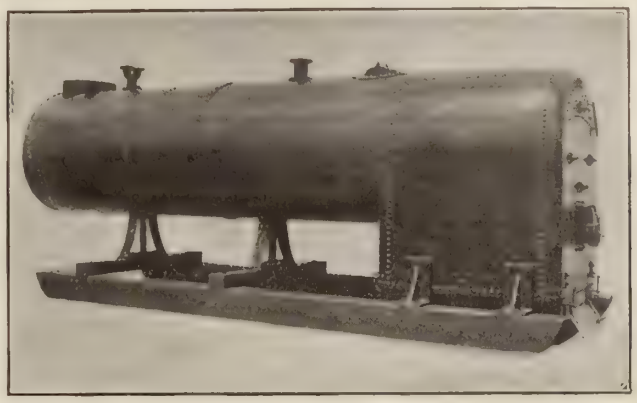
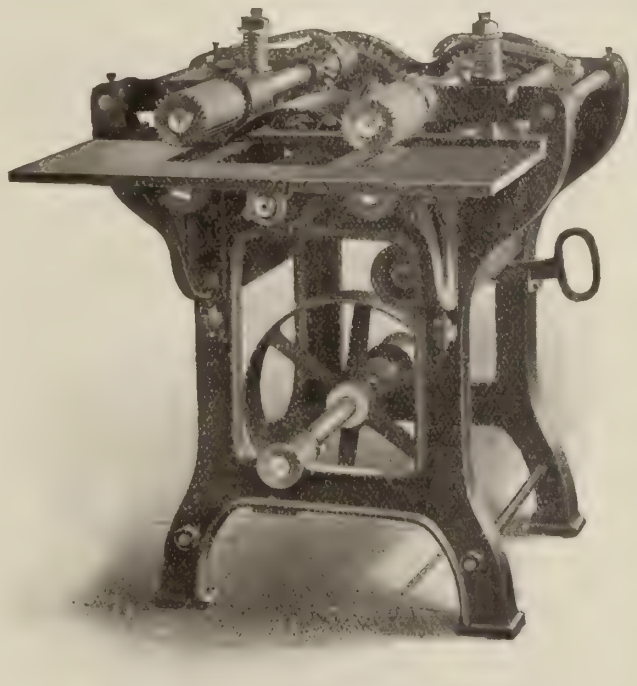


Locomotive Boiler on Skids

Self Feed Rip Saw

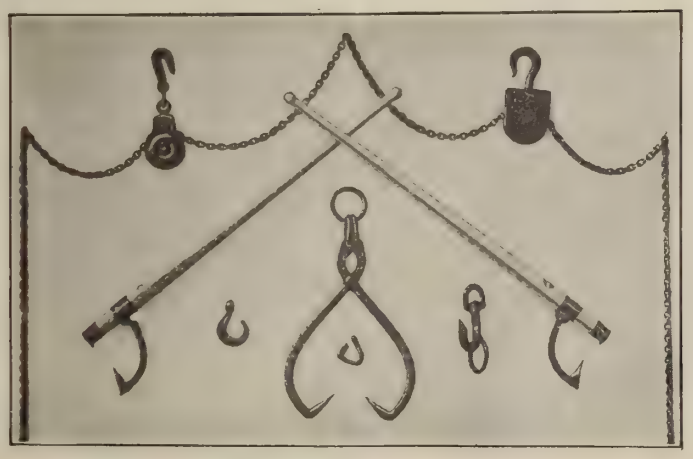


Self Feed Gang Saw

The Stuart Machinery Co., Ltd.
WINNIPEG, MAN.
Agents for Saskatchewan, Alberta and Manitoba

Write for catalogue. It illustrates many special Box Factory and Saw Mill machines

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.



When ordering from your Jobber specify

Pink's Lumbering Tools

and if they cannot supply them order direct, and you will get the best tool made

The Thomas Pink Co. Limited

PEMBROKE, Ont., Canada

Manufacturers of the best line of Lumbering Tools in Canada

CURRENT LUMBER PRICES—Continued

No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00
No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	46 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	30 00
No. 2 Barn 1 x 10	32 00
No. 3 Barn 1 x 6 and 8	23 00
No. 3 Barn 1 x 10	25 00
Box 1 x 6 and up	22 00
Box 1 x 10	23 00
Box 1 x 12	25 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

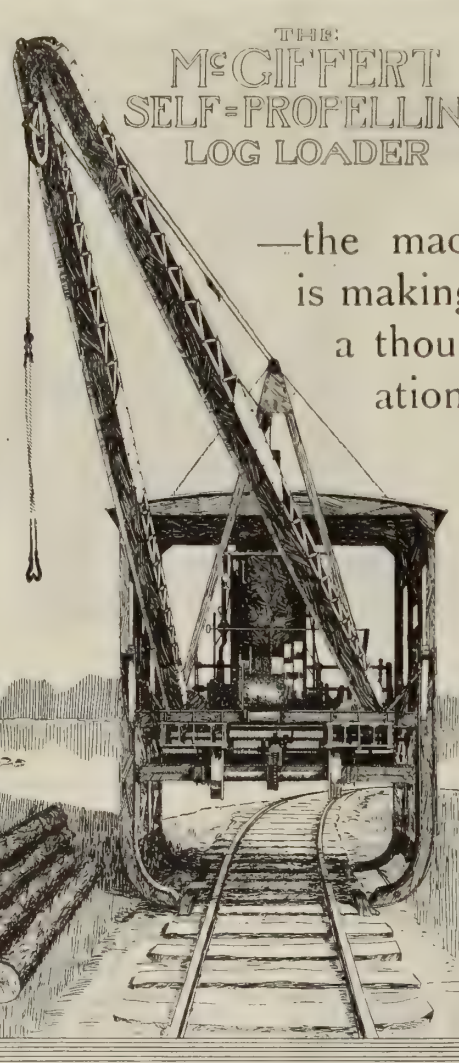
White Ash		
1st and 2nd, 1 inch	40 00	42 00
1¼ to 2 inch	44 00	46 00
2½ to 4 inch	48 00	54 00
Strips	22 00	24 00
Common and culls	14 00	22 00
Black and Brown		
1st and 2nd, 6 inch up	40 00	42 00
Common good culls	14 00	20 00
1st and 2nd 6 inch and up, red	40 00	42 00
1st & 2nd, white, 6 in. & up	30 00	32 00
Common and good culls	16 00	18 00
Elm		
1st and 2nd, rock, 6 in. and up	34 00	38 00
Common and culls	16 00	20 00
1st and 2nd, soft, 6 in. and up	28 00	32 00
Common and culls	13 00	18 00
Maple		
1st and 2nd hand	26 00	28 00
Common and culls	14 00	22 00
1st and 2nd, soft	26 00	28 00
Common and culls	14 00	22 00

BOSTON, MASS.

White pine uppers, 1 to 2 in.	$99 00	100 00
Selects, 1 to 2 inch		90 00
Fine common, 1 in.		72 00
Fine common, 1¼ to 2 in.	74 00	75 00
No. 1 Cuts 1 in.		45 00
No. 1 Cuts 1¼ to 2 in.	58 00	60 00
No. 2 Cuts, 1 in.	35 00	37 00
No. 2 Cuts, 1¼ to 2 in.	45 00	48 00
Barn Boards, No. 1, 1 x 12	50 00	52 00
No. 1, 1 x 10		38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12		43 00
No. 2, 1 x 10	35 00	37 00
No. 2, 1 x 8	34 00	35 00
No. 3, 1 x 12	33 00	34 00
No. 3, 1 x 10,	28 00	29 00
No. 3, 1 x 8	28 00	29 00
Canadian spruce boards	23 00	24 00
Spruce, 10 & 12 in. dimension	26 00	27 00
Spruce, 9 in. and under "		25 00
10 and 12 in. random lengths, 10 ft. and up	24 00	25 00
2 x 2, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3x4 random lengths, 10 feet and up	20 00	22 00
All other random lengths, 7" and under, 10 ft. and up	21 00	22 00
5 inches and up merchantable boards, 8 ft. and up, p 1s		19 00
Vermont spruce boards, matched	22 00	23 00
1 x 2 and 1 x 3 furring, p 1 s clipped and bundled	19 00	21 00
1½-in. spruce laths	4 00	4 10
1½-in. spruce laths		3 60

New Brunswick Cedar Shingles		
Extras	$3 60	$3 75
Clears	3 25	3 40
Second clears		2 75
Clear whites		2 30
Extra 1s (Clear whites out)	1 45	2 25
Extra 1s (Clear whites in)	1 50	1 60
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 50	4 00
Red Cedar Eurekas, 18-inch. butts to 2-in.		4 20
Red Cedar Perfection, 5 butts to 2¾		4 75
Washington 16-in. 5 butts to 2-in. extra red cedar		3 50

THE McGIFFERT SELF-PROPELLING LOG LOADER



—the machine that is making good on a thousand operations.

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Preparations for Horses are all sold on a Spot Cash Guarantee

Let us figure on furnishing you the following supplies for the coming season.

International Stock Food
We guarantee that your horses will do more work and keep in better order on less feed if they get International regularly.

International Silver Pine Healing Oil
Especially recommended for Sores, Bruises, Kicks, Inflammation and all flesh wounds.

International Worm Powder
Will quickly expel all kinds of worms.

International Distemper Cure
For Coughs, Colds, and Distemper.

International Colic Cure
Guaranteed to cure Colic in ten minutes.

International Compound Absorbent
Greatest Curb cure on Earth.

International Gall Cure
Cures while horses work or rest.

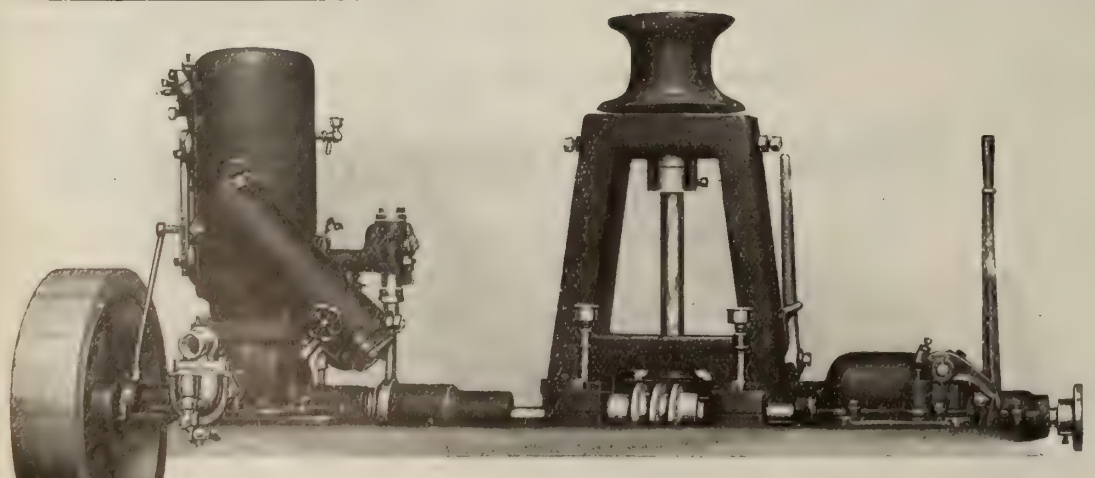
International Foot Remedy
Cures Foot diseases, keeps the hoof soft, elastic and tough

International Harness Soap
Gives new life to old harness.

All our goods are guaranteed to give satisfaction.

Write for Special Prices

International Stock Food Co., Limited
Toronto, Ont.



6 H.P. Heavy Duty Engine $175.00 Reversegear $36.00
Winch $30.00

River Driving Costs

will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25′ punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. Machinery $205.00. Complete punts $375.00. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 H.P.

Adams Launch and Engine Co.
Penetang, Ont.

JAMES D. LACEY WOOD BEAL VICTOR THRANE

James D. Lacey & Co.

TIMBER LAND FACTORS and TIMBER VALUATORS

We submit **Detailed** estimates with **Topographical** maps of all **Timber Properties** offered through our house Representations based upon our own **Expert** cruisers and loggers, whose **Integrity** and **Experience** have been thoroughly tested over a period of many years.
We solicit correspondence with **British Columbia** timber owners and prospective purchaser

1215 Old Colony Blk. CHICAGO | **1211 Whitney Central Bldg. NEW ORLEANS** | **1104 Spalding Bldg. PORTLAND, Ore.** | **1009 White Bldg. SEATTLE**

THE PETER GERLACH Co

MANUFACTURERS AND BUILDERS OF

CIRCULAR AND CYLINDER SAWS
STAVE, HEADING AND BARREL MACHINERY
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For the Manufacture of the Following

STAVES	HEADING
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COMPLETE PLANTS
FOR THE MANUFACTURE OF
BARRELS, KEGS, STAVES AND HEADING
OUR SPECIALTY.
FOR PRICES AND FURTHER PARTICULARS, ADDRESS
THE PETER GERLACH CO. CLEVELAND, O. U.S.A.

An Up-to-date Cross-cutting Machine

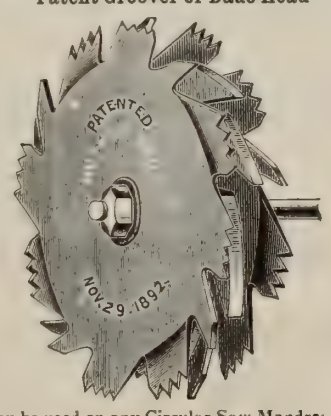
Made only by— **Butterworth & Lowe**
Send for Descriptive Price List. 221 Huron Street, Grand Rapids, Mich.

HUTHER BROS.

Hollow Ground Combination Tooth Mitre Saw

For either Rip or Cross Cutting
Will cut equally as smooth in either Ripping, Cross-cutting or cutting at an angle of 45 degrees, with grain of wood.

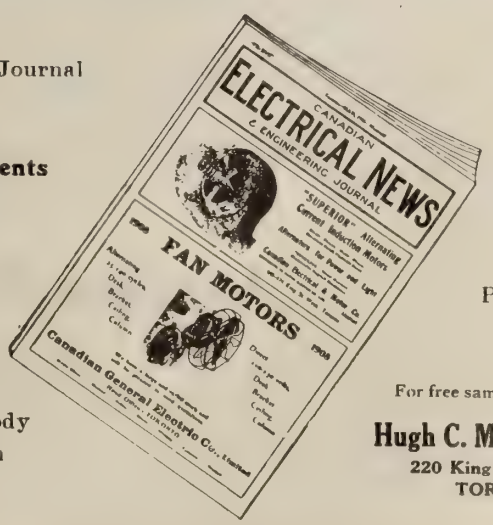
Patent Groover or Dado Head



Can be used on any Circular Saw Mandrel
For cutting any width groove from 1/8" to 2" wide. Will cut either with or across the grain (Sent on approval).

Allow us to quote Prices on Saws for any special work that you wish to do.
HUTHER BROS. SAW MFG. CO., Inc., **ROCHESTER, N. Y.**

A National Journal for **Managers Superintendents Electricians** and **Engineers** of **Electric Light Plants** and Everybody Interested in Electricity



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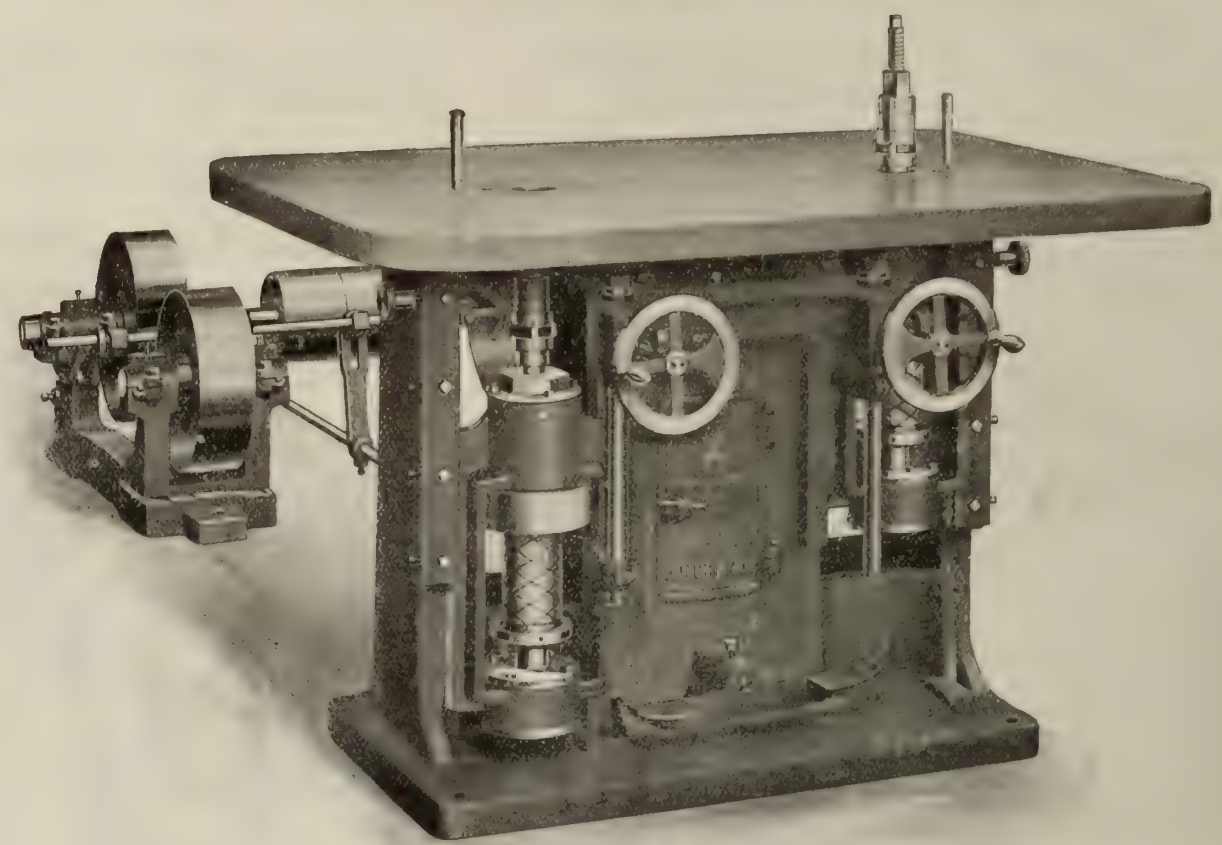
The American High Speed Ball Bearing Shaper



Running at the rate of 7200 revolutions per minute and with absolutely no vibration, produces the finest work obtainable on a Shaper.

High Speed is absolutely essential to fine and accurate cutting—you have it in an American Ball-Bearing machine.

We haven't discarded the taper bronze bush; you can have an American Shaper built that way if you wish, but we'll tell you frankly that the Ball-Bearings are better.

Write our nearest sales-office for price and further information.

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CHICAGO
917 Fisher Bldg.
NEW ORLEANS
Canal-La. Bank Bldg.

American Wood Working Machinery Co.

Executive and General Sales Office:

Rochester, N. Y.

Sales Offices:
PORTLAND, ORE.
First & Pine Streets
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314 W. Pacific Ave.
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The Matcher that Pays the Dividends Because of Its Efficient Operation

The topic of all planing mill conversation is the enormous saving that the new Berlin matchers are accomplishing at every installation. Reducing costs from 40% to 60% with each new machine is the verdict of nearly every user.

A saving in grades from 10% to 30% adds profits never before realized. Belt costs are cut in half and every feature of operation adds a profit that brings bigger returns than any investment you can make.

Capacity Unlimited

The capacity of a New Berlin is only limited by the ability of the operator or special feeding device. Producing high grade work at 200 to 300 lineal feet a minute is no longer impractical with our special feeding table. More time may be given in judging the grade while the feeding is taken care of automatically.

Patterns True to Standard

Profile work is done more economically on a new Berlin Matcher than by any other method. Changes from one pattern to another requires the least loss of time and besides, you have insurance against mismanufactured stock. Every pattern made today will match with that made a year hence. That's why your customer today is your customer tomorrow. Its a talking point that adds to the saleability of his stock.

Ease of Operation

Many features that heretofore required the attention of the operator are now done automatically. The slack is taken out of all belts without his attention, giving the maximum pull on both cutter and side heads with the least power expended.

All wear in cutter head and side head boxes is taken up by the new patented *automatic take-up boxes.* They never need be looked after other than oiling. They take care of themselves. And besides, you maintain a perfect cutting circle and a smooth-running head.

On the whole, every convenience for producing the highest quality has been provided for.

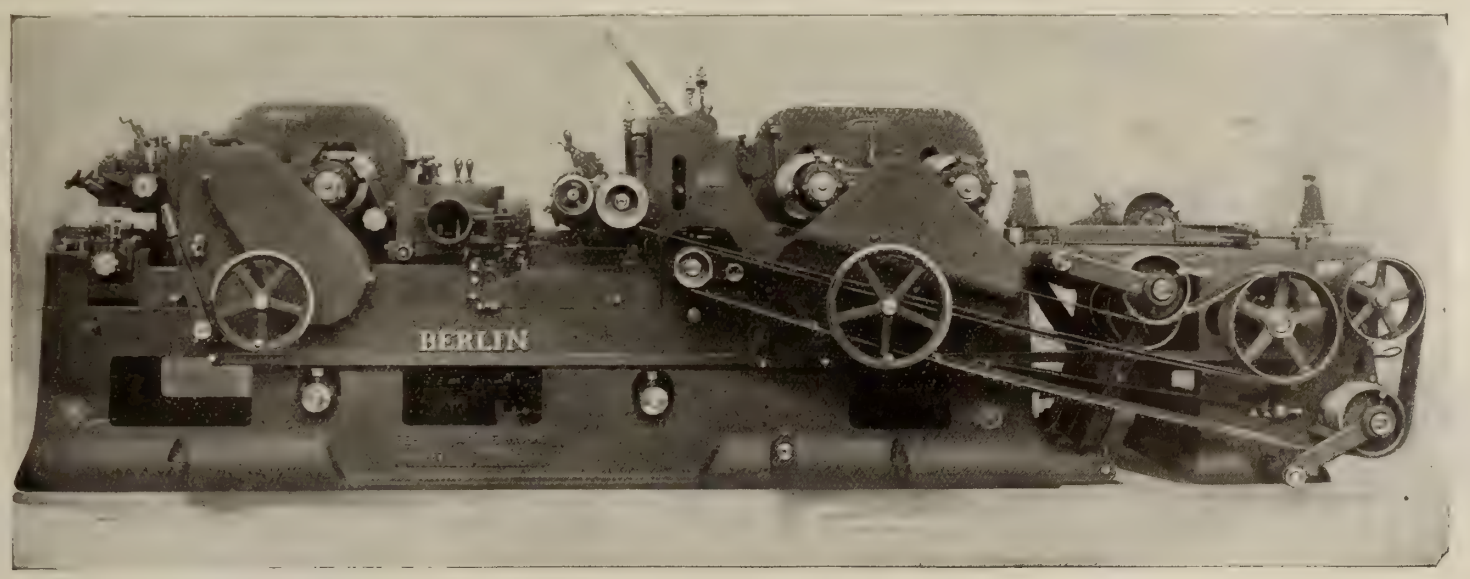
Up-keep Expense

Gears have always been the biggest item of expense on *any make* of machine. On the New Berlin there is *no expense* from this source. Only five gears are used in its entire make-up and placed where the least work is put upon them.

Our powerful chain drive has made this possible—a strong, effective mechanism that will outlast the life of the average machine—a demonstrated success for years at every installation.

Guaranteed Efficiency

You should judge the value of this new machine by contrast with other matchers. That's your guarantee of greatest value and assurance of highest quality to your product. The Berlin wil withstand the hardest test you can give it. You should get better acquainted with its advantages and construction

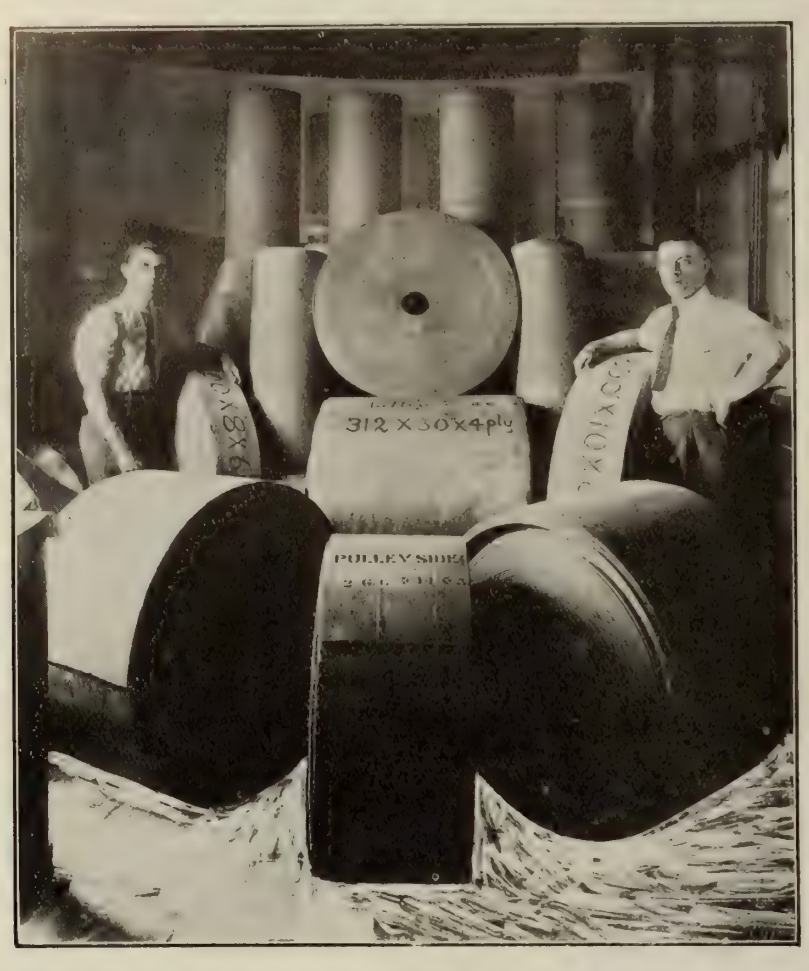


A 10-page circular of the several models sent upon request

THE BERLIN MACHINE WORKS, LTD., HAMILTON, ONT.

Largest Manufacturers of Wood Working Machinery in the World

United States Plant: Beloit, Wisconsin



Instead of Repairing That Old Belt Buy a

VI-BALATA

Vast improvements have been made in recent years in the manufacture of Balata belting. No old belt however good or however well repaired could possibly give as much satisfaction as a new one of more recent manufacture.

Vi-BALATA Belting embodies every improvement of importance that has ever been made in Balata Belting—it is the evolution of scientific experiment—the finished and perfect product of the most modern and complete process.

Vi-Balata Belting is preminently the most suitable for outdoor work or in any place where it is impossible to keep the belt dry it is absolutely waterproot and stretchless.

Send for particulars

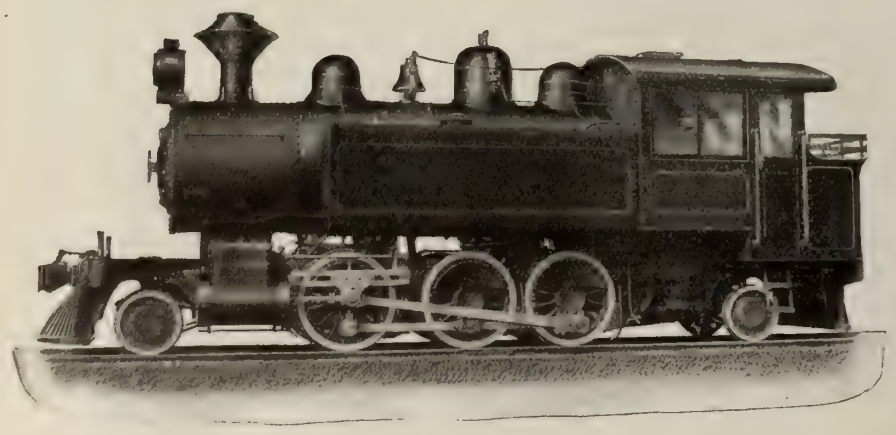
The General Supply Co. of Canada, Limited

356-58-60 Sparks Street, OTTAWA, ONTARIO

Market and Louise Sts., WINNIPEG, MAN. - - 115-125 Adelaide St. West, TORONTO

SELECTION OF LOCOMOTIVES

WHAT SHOULD BE KNOWN BEFORE YOU PURCHASE LOCOMOTIVES:—



Nature of the service.
Capacity of the cars and weight of train.
Character of track—is it new or old.
Length of haul.
Is time an important factor.
Do you want a quick locomotive or a big puller.
Distance from base of supplies and quarters for the men.
Water and coal carrying capacity.
All these items and more should be considered.
A careful study of conditions may mean larger profits.
Our experience may be valuable in considering them.
A dollar saved is more than a dollar earned.

Write or wire us, or better still, come to see us.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

Makes It's Mark Vivid and Lasting

Marks that remain vivid and wear like iron are a real satisfaction to the man who handles lumber. The metallic pigments, like graphite, of DIXON'S LUMBER CRAYONS offer marvelous resistance to all kinds of weather conditions. Their marks are often visible after six months of severe exposure to sun and storms.

DIXON'S LUMBER CRAYONS

have always remained the recognized standard because of their one, uniform and dependable quality; their convenient and uniform shape and size and because of the careful selection of materials used in their manufacture. DIXON'S LUMBER CRAYONS are made in nineteen grades and colors, including black (six grades), red (two grades), blue (two grades), green, white, yellow, brown, terra cotta, violet, pink and orange. Some are made to fill particular needs—let us tell you more about them. Get acquainted.

Write for lithographed booklet No. 239, illustrated in colors.

Joseph Dixon Crucible Company
Jersey City, U. S. A.

James W. Sewall
Forester and Surveyor

Mapping and Surveying of Wild Lands
Estimation of Timber and Working Plans

(Formerly forestry manager of the Appleton & Sewall Co.)

16 Centre Street
Old Town, Maine, U.S.A.

"John Bull" *Larrigans*

Wear Like Iron

WE tan the leather these larrigans are made from and know they will stand all kinds of wet and rough usage when properly cared for. We put a counter stiffener in our larrigans and sew it in with the leg when soled and heeled—a very durable feature in our goods.

Next time you buy larrigans see that you ask for **"John Bull."**

R. M. Beal Leather Co.
Limited
LINDSAY, Ontario

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

HEISLER GEARED LOCOMOTIVES

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

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ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

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Distributors of

Kelley Island Lime—(Lighthouse Brand)

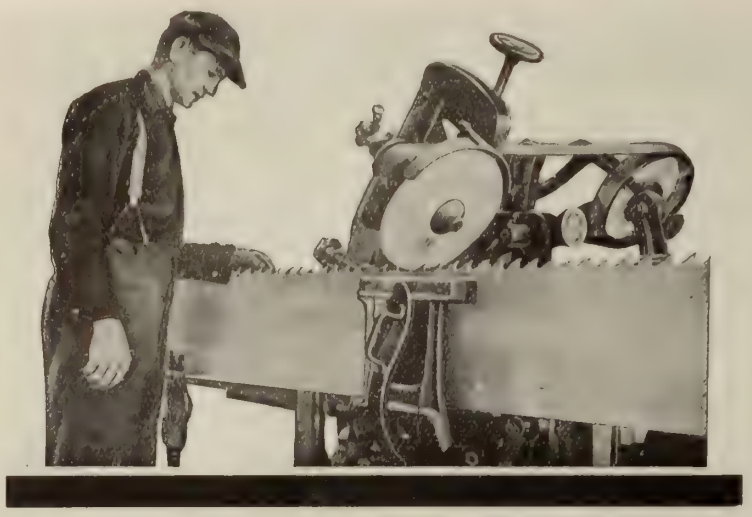
Burned with WOOD, from selected Ohio bottom Rock, and packed fresh from the Kilns, in new, tight, double-headed barrels.

Can also ship you in Mixed Carloads

Hard Wall Plaster, Wood Fibre Plaster, Hydrated Lime, Mortar Colors, Waterproofing.

Distributors of HURON PORTLAND CEMENT

Wire Us Your Orders for Prompt Shipment



Good Saw Service Depends a Whole Lot Upon the Saw Gumming Wheel

AN ALOXITE WHEEL will give you better conditioned saws—hence better saw service. A poor saw gumming wheel will handicap your men, lessen the efficiency of the saws. Aloxite Saw Gumming Wheels cut free, fast and clean. They will not burn or case harden the saw teeth, they hold their shape, show economy in their long life, cut quietly and easily. Aloxite is the greatest of all steel grinding materials.

Let Us Send You a Trial Wheel
—Put It to the Test

The Carborundum Company

Niagara Falls, N.Y.

New York, Boston, Chicago, Cincinnati, Philadelphia, Cleveland, Milwaukee. Pittsburg, London, Eng.

What are You Paying Your Watchman for?

CLOCK

THE HARDINGE WATCHMAN'S CLOCK can best answer this question.

Write for Circular M-48

STATION

HARDINGE BROS., 3133-3141 Lincoln Ave., Chicago, Ill.

Morgan Machine Company

ROCHESTER, N. Y.

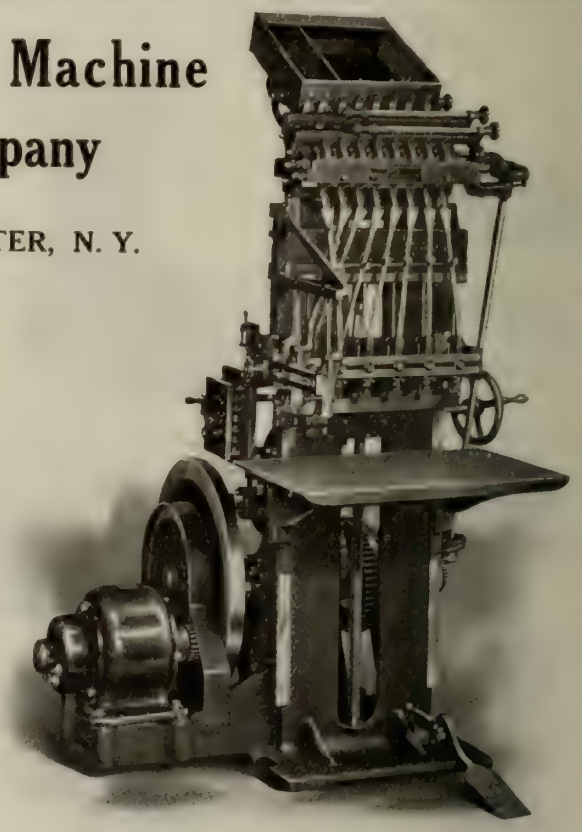
Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.



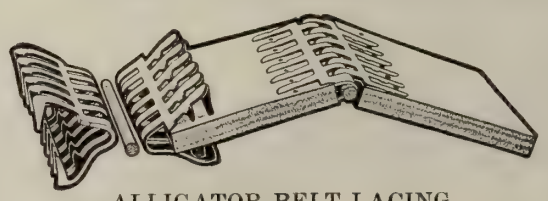
Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N.Y.

"LIMESTONE" Wood Split Pulleys

The Strongest Wood Pulley Made. NAILED and GLUED

We carry the largest stock of Wood Pulleys in the Country.



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Also Lukenheimer Valves, Lubricating Oils and Greases, Packings, Hose, Paints, etc.

Rush Orders Promptly Filled. **Belting in Stock 1-in. to 20-in.**

LARGE BELTS A SPECIALTY

Crescent Oil Co., Hamilton, Ontario

Wire Rope

When you need wire rope for any purpose whatever, it will surely pay you to communicate with us.

We have in stock all kinds—in all sizes—in any length.

Should your requirements be special—we can make rope to exactly suit your needs. We know how, as we have had years of experience.

Wire Rope Fittings of all Kinds

The Dominion WIRE ROPE Co., Limited
MONTREAL

The General Supply Company of Canada, Ltd., Agents for Manitoba

MAPLE LEAF BELTING

Strong
Waterproof
True
Running

For
Indoor or
Outdoor
Work

¶ Maple Leaf is the most economic and efficient belting for power transmission and conveying, etc.

¶ It costs only half as much as leather and 25 per cent less than good rubber belting.

Write for sample and prices to the sole manufacturers

DOMINION BELTING CO.
HAMILTON, CANADA

Buyers of Groceries and Provisions

BEFORE placing your next order for Camp Supplies let us quote you prices for list of requirements. We make a specialty of this class of business.

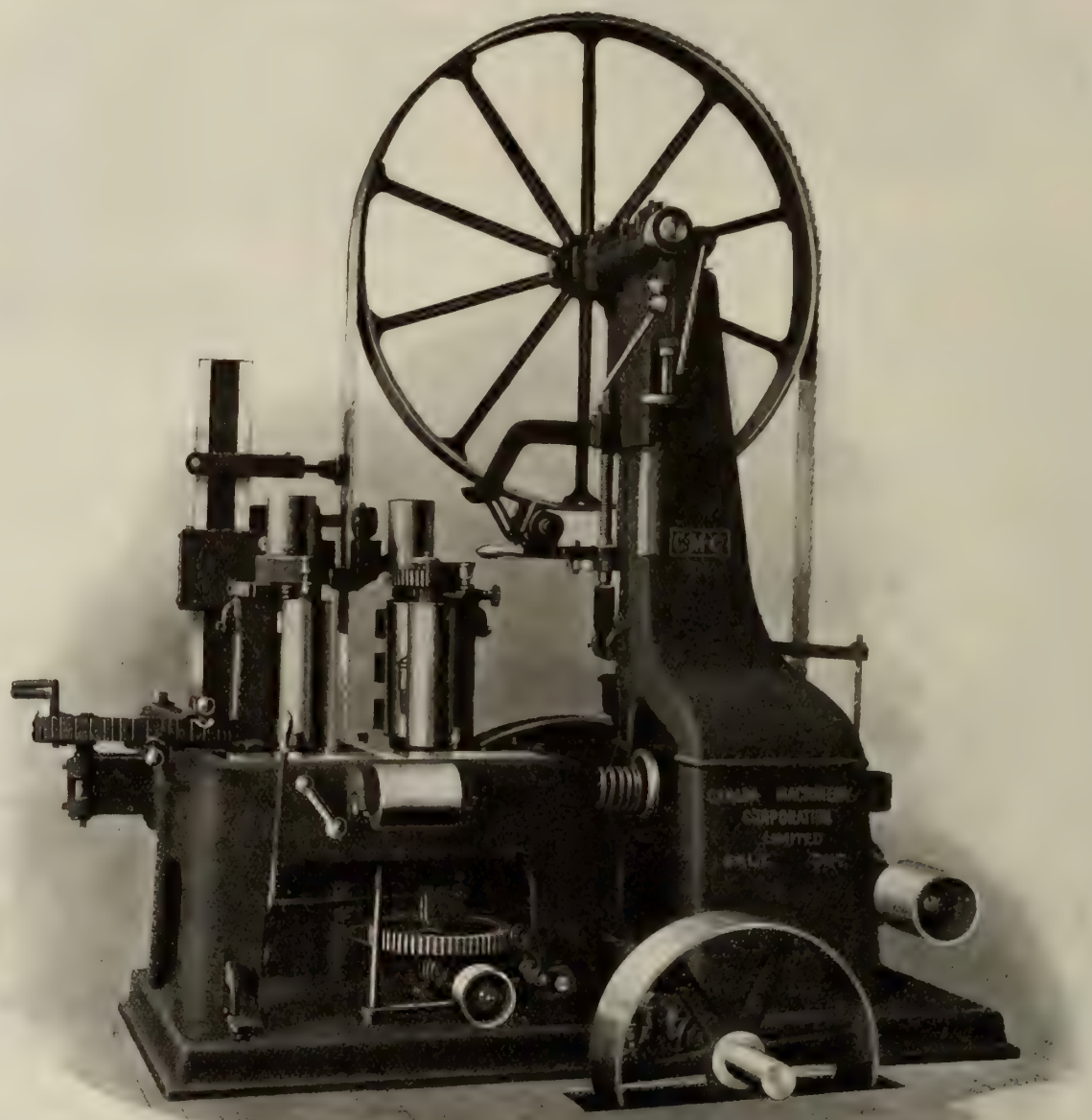
Orders shipped promptly and we guarantee the quality of all goods shipped.

H. P. Eckardt & Co. *Wholesale Grocers*
Cor. Front & Scott Sts., Toronto

No. 701 BAND RE-SAW

C.M.C.

No. 701 BAND RE-SAW



60″ BAND RE-SAW

A Large Heavy Type Band Re-Saw of the Latest Improved Design

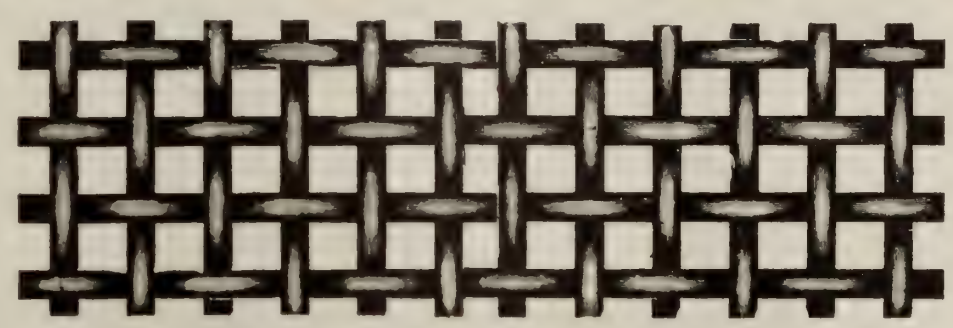
Full Details, Bulletins and Prices Supplied on Request

We Make the Most Complete Line of Wood-Working Machinery in Canada

Canada Machinery Corporation, Limited

Galt, Ontario

STEEL WIRE CLOTH



FOR REFUSE BURNERS

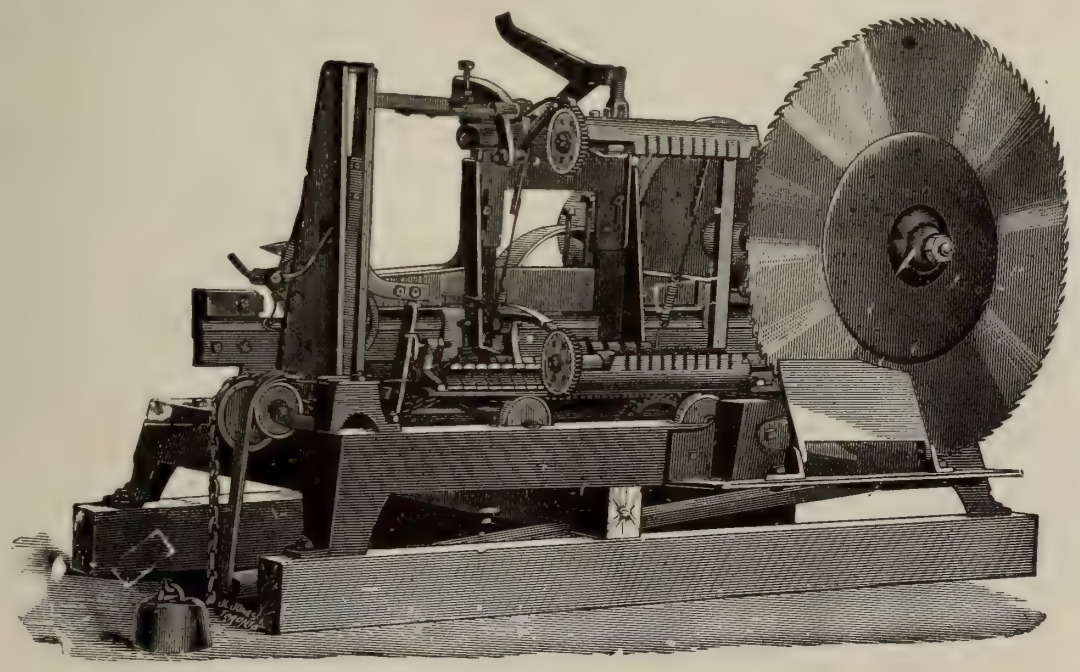
Write for sample and full particulars

Alligator Ropes Saw Mill Carriage Ropes

The B. Greening Wire Co, Limited

Hamilton, Ont. - Montreal, Que.

Mowry's Boss Shingle Machine



THIS MACHINE IS ONE OF THE BEST SINGLE BLOCK SHINGLE MACHINES MADE IN CANADA. Wherever introduced it has taken the place of all other shingle block machines. It is perfectly automatic in its action. The stroke is never longer than the cut, thus saving an immense amount of time, and by the touch of a lever the operator can make the machine butt all at one end, so as to bring the knots all at the thin edge. A patent brake relieves the machine of all jar when the carriage is stopped to change blocks. It has a powerful friction feed. It is altogether the simplest in construction of any machine built and combines so many advantages that it is far superior to any machine on the market. We build shingle machines both horizontal and vertical. SIMPLE. CHEAP. DURABLE. If you want a good shingle machine try the "Boss" and you will be more than pleased. One 40 inch saw and one 24 inch collar with each machine.

We also Manufacture all kinds of High Grade Machinery for Saw and Shingle Mills. Write for Prices

MOWRY & SONS, Gravenhurst, Ontario

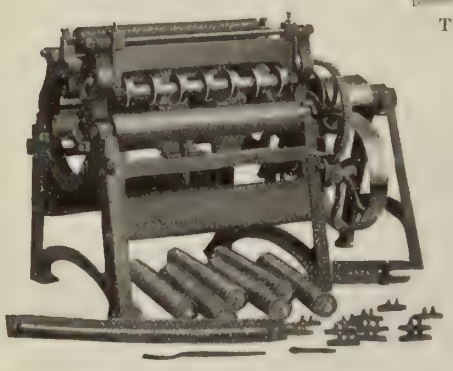
Long's Quality Machinery

Here are a few machines which appeal to the practical millman.

Steel Carriages

This style built with 36-in., 40-in., 44-in., 48-in., 54-in., 60-in., 72-in., opening from saw line

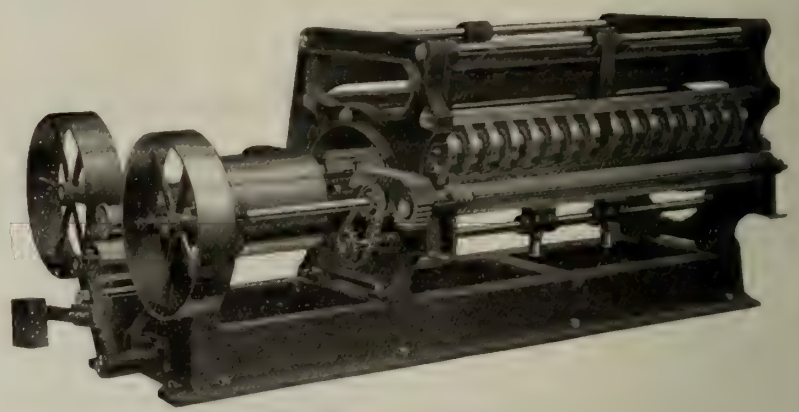
We have others. If you don't see what you want here, send us your inquiry.



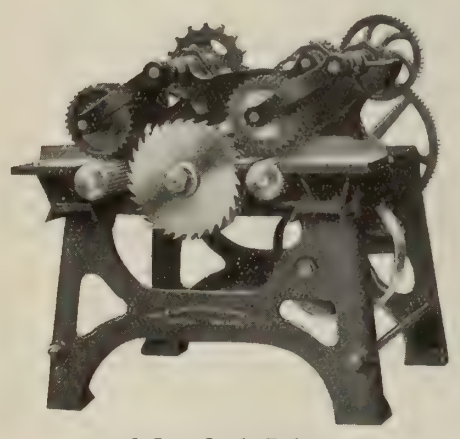
32-in. Edger

EDGERS

suitable for Sawmill of any Capacity



This style built 54-in. 60-in., 66-in., 72-in., 84-in., 96-in. between frames

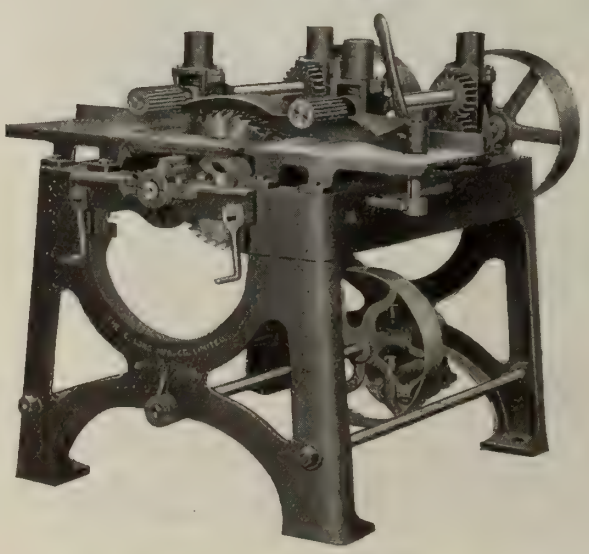


3 Saw Lath Bolter

Complete Mills of any Capacity

No. oo Portable Mill

Our entire attention is devoted to studying the needs of the sawmill trade. Our services are at your disposal.



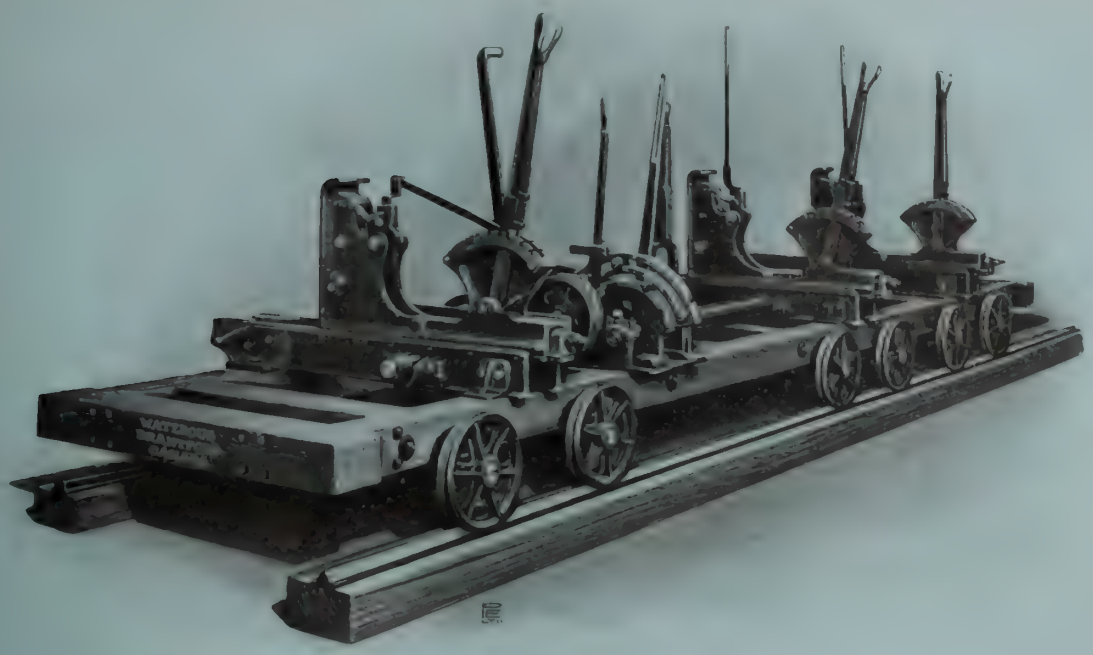
Heavy Duty Lath Machine

Mill plans and specifications of complete mills furnished.

The E. LONG MANUFACTURING CO., LIMITED, Orillia, Ont.

AGENCIES:

MONTREAL—Williams & Wilson, Ltd.
WINNIPEG—Stuart Machinery Co., Ltd.
EDMONTON and CALGARY—Gorman, Clancey & Grindley, Ltd.
VANCOUVER—Robert Hamilton & Co.



Our No. 2½ Girder Carriage has knee opening of 30, 36 and 40 inches; frame of red pine; logseats double girder 6 in. I beams, steel lined; knees very high, fitted with 4 in. taper movement; Waterous Improved Dogs; steel Nigger Hook; Racks and Pinions cut from solid steel; set shaft 2-7/16 in. diameter; Waterous No. 1 double acting ratchet Setworks; Double trucks under each logseat; wheels of steel 12 in. in diameter, axles 2-3/16 in. Weight from 5500 to 6500 lbs.

STEEL-GIRDER CARRIAGES FOR MEDIUM MILLS

For medium power mills the Steel Girder Carriage has no equal. We build a complete line—in three distinct styles,—which we can guarantee second to none in cutting ability, wearing qualities and in continuity of service.

With knee opening of from 30" to 50", these Carriages are adapted for Band or Circular Mills and for Steam or Rope Feed.

They are turned out with exceptional care. A sturdy, well put together frame, knees and log-seats of great strength, with dogs, setworks and accessories identical with those supplied on our heavy cast steel carriages.

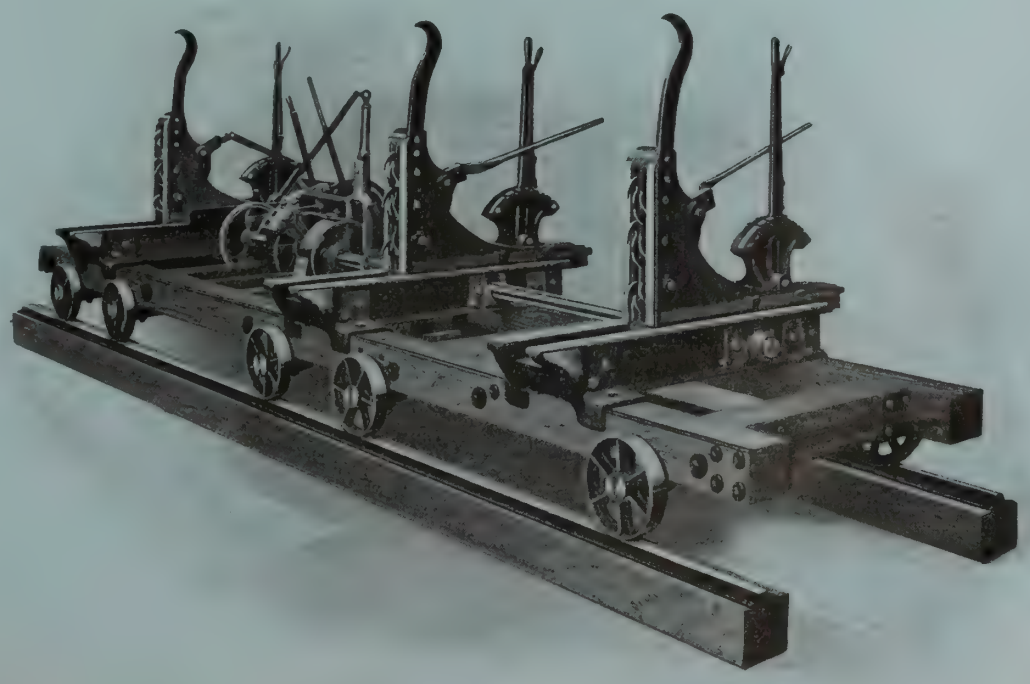
Our new Medium Carriage Catalogue No. 111 is just off the press—send for it.

The Waterous Engine Works Co., Ltd.

BRANTFORD, CANADA

Vancouver, B.C. **Winnipeg, Man.**

The No. 3 Double Girder Carriage Knee opening of 40 in. and 50 in.; red pine frame ½ stringers and crossgirts 8 in. x 7 in.; logseats double girder, 8 in. I beams, heavily faced and reinforced; knees fitted with Waterous Improved Dogs, 4 in. Taper Set, steel Nigger Hook; Racks and Pinions of cut steel, Set-shaft 2-15/16 in.; No. 4 Combination Ratchet Setworks; double trucks, steel wheels 14 in. in diameter, axles 2-7/16 in. Weight 6500 and 7500 lbs.



$5,000,000.00

worth of mixed metals is what we market every year

PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.

Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

We solicit your patronage

HOYT METAL CO., Toronto, Canada

New York, N. Y. **London, England** **St. Louis, Mo.**

BATTS LIMITED

WEST TORONTO

MANUFACTURERS OF

Staved Columns
Veneered Doors
Newel Posts
Sashes - Flooring
Trim
Pine Doors and Frames
Turned Newel Posts and Balusters
Cypress Greenhouse Material

BATTS LIMITED

MANUFACTURERS

WEST TORONTO, ONT.

THE LEATHER BELT THAT'S KNOWN OUR "EXTRA"

THE J.C. McLAREN BELTING CO. OAK EXTRA TANNED EST 1856

MONTREAL TORONTO

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The J.C. McLaren Belting Co.
Limited

General Mill Supplies **MONTREAL**

H. Walters & Sons

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Manufacturers of all kinds of

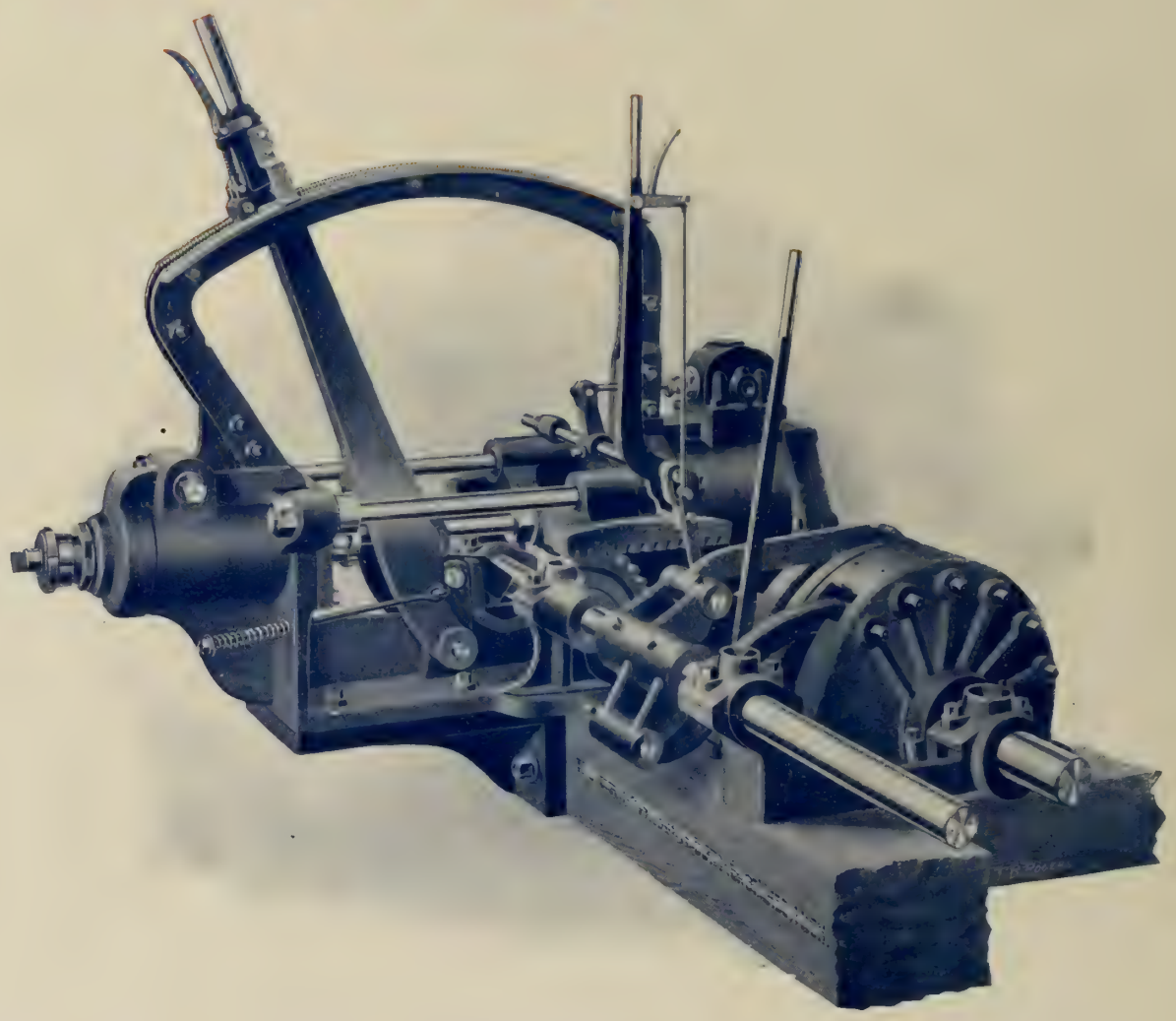
Saws, Axes, Axe Handles, Lumbering and Logging Tools, Machine Knives

Canada Lumberman and Wood-Worker

ANNUAL and CAMP SUPPLY NUMBER 1912

Toronto, September 1, 1912 Hugh C. MacLean, Limited, Publishers Vol. 32. No. 17

Did you ever really figure what it means to you to increase your cut 2,000 feet per day?



That is, increase it 2,000 feet per day without adding to your cost of sawing.

Or, in other words, what effect will it have on your profits if you can distribute your overhead charges and wages over an output 2,000 feet per day greater than it is now?

If you haven't figured it out, take your pencil and try it now.

You know how much it costs you to run your mill every day—divide that amount by the number of thousand feet per day in your present output—add 2,000 feet to your present output and divide your daily cost by that amount—and the difference between the two results represents the saving per thousand feet in your operating cost.

Then multiply that figure by your total output per season—and we think the result will surprise you, if you have never looked into this before.

This is just one of the ways in which our FOUR INCH STEAM SET WORKS will make money for you, and it will do just this because the users themselves have written us stating that they have increased their cut ***upwards*** of 2,000 feet per day.

May we send you further information about this Steam Set works?

William Hamilton Company, Limited

PETERBOROUGH - ONTARIO

YARD VIEW AT OUR MILLS, CACHE BAY, ONT.

CHOICE PINE

Lumber buyers who come face to face with the consuming public are to-day experiencing a demand for quality products that we anticipated a good many years ago.

Our first move in the production of Pine Lumber was the acquisition of a good supply of timber—not only a good quantity, but particularly a good quality, and the best proof we can offer you of our success in the selection of this kind of timber is found to-day in our

Norway or White Pine Lumber, Railroad and Structural Timbers, Flooring, Ceiling, Moulding, Siding, Cross-arms, etc.

Daily Capacity of Mill 190,000 feet of lumber, 65,000 pieces of lath, exclusive box boards and pickets.

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Boost Your Profits With These Grades of Lumber

THERE is a constant, never-ceasing demand for lumber of known quality, that stands up under the most trying conditions and that gives the best value for the money. You can find no better or more economical grades than the

WHITE PINE
QUEBEC SPRUCE
AND HEMLOCK

supplied by this firm. We have filled many orders since spring in these lines and in every instance they have given the utmost satisfaction.

It is our endeavor at all times to give prompt shipments and you are thus assured of the quickest possible deliveries.

You are also assured of a wide margin of profit because we always quote the lowest market prices.

Your own eyes will convince you of the fine quality of our lumber—let us fill just one order for you and you'll be ready next time with fore-knowledge of where you can get the best values and quickest shipments.

We have never forgotten the old adage about the satisfied customer—that's why we have yet to hear of a dissatisfied one.

There's money in the grades mentioned above—don't you want some of it ?

Write for monthly stock sheet and full information

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 200 Claremont Ave., MONTCLAIR, N.J. **Hope Chambers, OTTAWA, CAN., Head Office**

Michigan Hardwoods

A Choice Block of Michigan Stock Ready to Load on Our Steamer

Maple, Birch, Basswood, Brown Ash and Elm

We cut in Michigan this year 18,000,000 feet of hardwoods from choice Upper Peninsula Logs. This is being brought down to our Buffalo Yard by our steamers "Kongo" and "Dorcas Pendall" for shipment to our customers.

Our lumber is manufactured right, graded right, and shipped right. A new customer means continued business.

Shipments By Steamer or Rail.

May we Quote You on Your Requirements?

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Yards: Buffalo, N.Y., North Tonawanda, N.Y., Allendale, Pa.

JOHN GILLIES
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Established
1873

GILLIES BROS. Limited

Mills & Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

Cedar Shingles and
Railway Ties

RED PINE, SPRUCE, HEMLOCK, CEDAR

Planing Mill, Yard & Office
MORRISTOWN, N.Y.

CAPACITY 40,000,000

New York City
Guy E. Robinson, 1123 Broadway

The

Georgian Bay Lumber Co.

Limited

Waubaushene, Ontario

Manufacturers of High Grade

Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

White Pine
Red Pine
Spruce
Lumber and Lath

Office, Castle Building 53 Queen St. Ottawa, Can.

F. N. WALDIE, President. R. S. WALDIE, Vice-President. W. E. HARPER, Secretary.

The
Victoria Harbor Lumber Company
Limited

Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont. Head Office, 12-14 Wellington Street East, TORONTO, ONT.

ESTABLISHED 1870

G. A. GRIER & SONS, LIMITED

1112 Notre Dame West, MONTREAL, P. Q.

MANUFACTURERS AND WHOLESALE DEALERS IN

Sawn Lumber, Softwoods and Hardwoods, Dimension Timber

DIMENSION TIMBER IN STOCK AT MONTREAL FOR PROMPT SHIPMENT

Mills at Lachute, P. Q. **Manufacturers Birch Flooring**

Timber Limits for Sale on Georgian Bay

The undersigned offer for sale in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; Tug Scow and other Lumber Equipment, including boom chains, plows, sleighs, etc.

The Limits, part of which have recently been sold, include: 440 square miles of licensed and deeded Pine, Hemlock, Spruce, Birch and other timber. The licenses from the Ontario Government include all timbers and are not restricted for time. Government dues are as follows: Saw Logs, White Pine, $1.50 per M. ft., B.M. Saw Logs, Hemlock, Tamarac and other woods 75c. per M. ft. The timber is situated in the Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street. The Canadian Pacific, Canadian Northern and Grand Trunk Railways run through the limits, which makes some of the parcels offered for sale particularly desirable for small mill owners.

A circular giving full information, maps, terms and conditions of sale will be furnished upon application to

The Parry Sound Lumber Co., Limited

1315-20 Traders Bank Building, TORONTO, CANADA

White and Red Pine and Spruce

A GLIMPSE OF OUR SAW MILL

"PINE THAT'S PINE"

That's the kind of stock your customers want—high grade. That's the kind you get when you buy at Lumsden's Mills.

QUALITY and CAPACITY

The very highest grade stock that the choicest timber and modern methods of manufacture can produce, with every facility for quick shipment.

WRITE US YOUR REQUIREMENTS.

JOHN LUMSDEN

LUMSDEN'S MILLS - - QUEBEC

Red and White Pine

McFadden & Malloy

WEBBWOOD, ONT.

Operating at Spanish River. Sawmill at Cutler, Ont.

Cut 20,000,000 feet of pine per year

Ferguson & McFadden

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Cut 15,000,000 feet of pine lumber annually

J. J. McFadden & Co.

EAST TEMPLETON, QUE.

Cut 12,000,000 feet of pine annually

Write direct to any of the above firms for quotations.

Cameron & Co., Limited

Manufacturers Lumber, Lath, Shingles, Timber, Poles and Posts

We have for quick shipment DRY

1" WHITE PINE MILL CULLS **1" WHITE PINE BOX**

MILL and YARD, *OPEONGO, ONT.* *HEAD OFFICE* *OTTAWA, ONT.*

Send your enquiries to our Head Office

LUMBER

For Prompt Shipment

4/4", 5/4", 6/4", 8/4, 10/4, 12/4, 16/4" Birch ready for prompt shipment, 400,000' Muskoka Stock.

4/4" to 16/4" Hard Maple 1,100,000' Michigan stock.

4/4" to 8/4" Basswood, 350,000'.

Send us your inquiries for Plain & Qtd. cut White Oak. We have cars on the way all the time. Can load mixed cars from our Berlin yard the same day they are received.

B. C. X X X SHINGLES always on the way.

We want Spruce, Elm and Birch Crating at once.

The Glengarry Lumber Co. Limited

BERLIN, ONTARIO.

E. A. LeBEL

Sarnia, Ont.

Wholesale

White Pine, Norway, Hemlock and Cedar Products

Red Cedar Shingles a Specialty

Prompt Shipments and Careful Attention to all Orders.

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YELLOW PINE TIMBERS

Write or Wire

Enochs Lumber & Mfg. Co.

JACKSON, MISS.

Imperial Timber & Trading Co.
LIMITED
VANCOUVER, B.C.
Branch Office:
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CALGARY, ALTA.

Every Description of
DOUGLAS FIR,
RED CEDAR, SPRUCE,
HEMLOCK, LARCH and
PINE LUMBER and
RED CEDAR SHINGLES

Heavy Construction Timbers a Specialty
Lengths up to 110 ft.
Try a car of our Extra Quality XXX RED CEDAR SHINGLES

Rail and Water Shipments.

CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS.
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

WANTED
100 m ft. clear hard Maple axles 4 in. x 5 in.-6ft. and 12 ft. long. Also all thicknesses Common and Better Birch.

For Sale
All grades and thicknesses of Cherry and Mahogany lumber. Also Mahogany, Circassian Walnut and Quartered White Oak veneer all thicknesses. Please let us hear from you.

WARREN ROSS LUMBER CO.
Jamestown, N. Y.

SPECIALTIES
Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie
Pine and Hardwood
Lumber
Lath and Shingles
North Tonawanda, N. Y.

"Well Bought is Half Sold"

STOCK OFFER;-

2 cars 1 x 8 and up No. 3 shop and better W. P.
3 " 6 4 No. 1 and No. 2 shop. "
2 " 6 4 sash cuts "
4 " 6 4 x 10 Select Mill Run "
4 " 2 x 6 Common and Dressing "

The above all 1911 cut F.O.B. Byng Inlet.

We can ship promptly.

Let us have the pleasure of quoting.

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine and Hemlock Lumber

730 Traders Bank Building, Toronto, Ont.

Mills: Byng Inlet, Ont.

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All Secondhand
Correspondence solicited
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Modern Methods Do It All

Pine
Hemlock
Spruce
Hard-
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Rough
and
Dressed

We
make
a
Specialty
of
Long
Timbers

Fassett Lumber Co.—Loading Logs on Cars for the Mill

Fassett Lumber Company, Limited

FASSETT, QUEBEC

Pianoforte Soundboards

for the English Market

CAN CANADA COMPETE WITH THE STATES?

The premier English firm of Piano Stock Importers offers Canadian Manufacturers a large and regular trade in this article.

Originally they were manufactured in Europe, but American enterprise soon secured the business. Can Canadian enterprise displace the Americans?

ALSO

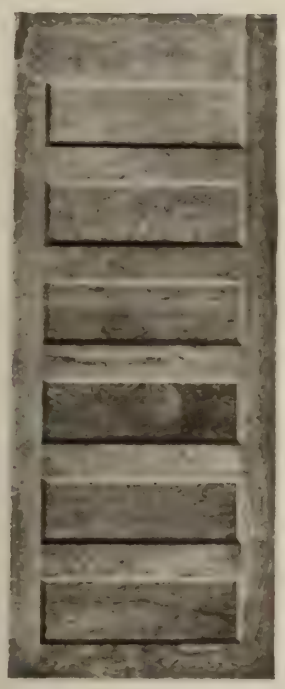
QUARTER SAWN MAPLE WREST PLANKS
AND
GLUED UP BASSWOOD KEYBOARDS

REPLY TO

LOUIS BAMBERGER, 2 Broad St. Buildings Liverpool St., London, E.C. ENGLAND

Who has been associated with the Canadian Lumber Trade for almost half a century, and is well known to all Quebec and Montreal Pine and Spruce Shippers

Dealers Looking for BIG PROFITS and High Grade Quality Doors



cannot afford to overlook the advantages of buying in carload lots when you are assured regular mill run stock of the quality and workmanship we offer. This is particularly true of the special offer we are making right now on carload lots.

WE ARE THE

Biggest Manufacturers of Doors in Canada

A DOOR A MINUTE IS OUR CAPACITY

GET BUSY AND INVESTIGATE

Estate James Davidson - Ottawa, Ontario

Edward Partington Pulp & Paper Co. Limited

St. John, N.B., Canada

High Quality Bleached Sulphite Pulp

Spruce, Hemlock and Pine Lumber

Laths **Hardwoods**

European Office: Kellner-Partington Paper Pulp Co., 11 New Market Lane, Manchester

FOR QUICK SHIPMENT

We offer the following stock, subject to prior sale—All Dry Stock:

A few cars left of:

5/4 x 6/8/10 No. 1 and 2, Barn
6/4 x 6/8/10 No. 1 and 2, Barn
200M 1", 1½" and 2" x 12—12/16 Spruce
100M 3 x 10—10/16 Spruce
1" x 4", 5" and 6" No. 1 and 2, Barn
1½" x 4", 6' 8" x 10" No. 2, Barn and Better

From Small Logs

1", 1¼ and 2 x 4,—10/16' Spruce, rough or dressed
" " 2 x 5, " " "
" " 2 x 6, " " "
" " 2 x 7, " " "
" " 2 x 8, " " "

1 , 1¼ and 2 x 10,—10 16' Spruce, rough or dressed
" " 2 x 12, " " "

A choice lot of 1" Ash and winter sawn 1" Basswood; also Birch Flooring in all grades and thicknesses.

1 x 4/up, 6/11' Mill Run Hemlock, Mill Culls out.
1 x 4/5", 12/16' " " " " " "
1 x 4/6", 12/16' " " " " " "
2 x 4/up, 12/16' " " " " " "

2 x 6, 7, 9 & 11", 12/16' Mill Run Hemlock, Mill Culls Out
3 x 8, 10 & 12", 12/16' " " " " "
Also Log Run Hemlock, Dead Culls out.
Scant 2 x 6, 8 and 10", 6/16'

Send us your inquiries. We can supply you all your wants in Pine.

DRESSED LUMBER OUR SPECIALTY

Write, wire or 'phone us for prices before placing your orders.

W. C. Edwards & Co., Limited

Ottawa, Ont.

Mills at Ottawa and Rockland **Planing Mills and Factories at Ottawa**

"EVERYTHING IN LUMBER"

RUSSE & BURGESS

(INCORPORATED)

Manufacturers of

Hardwood Lumber

OAK ASH GUM

All of Our Lumber Graded According to the Rules of the National Hardwood Lumber Association

Memphis, Tennessee

Place Your Dimension Orders Early

White and Red Pine, Spruce, etc., Bills, any Size, any Length

ROUGH OR DRESSED

East Entrance, No. 2 Yard

We still have a few cars each dry 1 x 12, 1½ x 12 and 2 x 12 x 12/16 for sale.

Fast Feed Planing Mill in Connection

The Colonial Lumber Co.

Pembroke, Ont.

MAHOGANY

We Carry Full Stocks of

Figured Cuban Veneer

Making a Specialty of 1-20" and 1-8"

We import the highest grades of fancy hardwoods and on short notice can furnish logs or seasoned lumber suitable for cabinet work, interior finish or

Fancy Sawed Veneers

Other Stocks are:

English Brown Oak Butts—Sawed to order
Circassian and Turkish Walnut Logs
High Grade Native Cabnet Woods and Veneers

Memorandum of Stocks on Hand and Prices on Application

The Martin-Barriss Co.

IMPORTERS
Cleveland, Ohio

MARITIME PROVINCES

Maritime Lumber Co.
Limited

Head Office: Saint John, N. B.

Branch Office: 180 St. James St. Montreal, P. Q

OFFER FOR IMMEDIATE SHIPMENT THE FOLLOWING WHITE PINE

1 x 6	78,876	ft.
1 x 7	46,154	"
1 x 8	57,256	"
1 x 9	33,928	"
1 x 10	20,955	"
1 x 11	18,162	"
1 x 12	21,342	"
Random,	119,637	"

The above Pine is last year's cut, 1st, 2nd and 3rd Quality

Donald Fraser & Sons, Limited

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MANUFACTURERS OF

Long Lumber

Rough and Finished

Shingles, Clapboard,

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Canadian lumber manufacturers and wholesalers should advertise regularly and prominently in the

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This paper reaches all the principal buyers of Canadian lumber at home and in Great Britain, United States, Europe, South America.

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If you desire to get beyond the retail dealer and reach the builder and the architect it will pay you to advertise in the

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Full Stock Dry Pine and Hemlock

BILLS IN PINE AND HEMLOCK

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NEW TELEPHONE ADELAIDE 1783

The Fesserton Timber Co., Limited
15 Toronto St., TORONTO
Mills at FESSERTON, ONT.

JOHN DONOGH & CO.

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Hemlock **Spruce**
White Pine **Red Pine**

Full stock in all grades and sizes

B.C. Cedar Shingles — **N.B. Cedar Shingles**

—WRITE US—

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C. A. Larkin Lumber Co.

Limited

We have an exceptionally well assorted stock of Dry White Pine, but wish to call particular attention to our select Mill Run 5/4" x 4/5. 6. 8 & 10" and 6/4 x 10."

If you want silo stock, we have it; 2 x 4, 2 x 6, 2 x 8, & 2 x 10 10/16 Mill Run Norway.

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Do You Want a Salesman?

¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

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We are in the market for Hemlock, Spruce and Hardwoods, also No. 1, 2 3 Lath.

Send us list of anything you have to offer.

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OFFER

One Million feet, Birch, Basswood, Ash, Elm and Maple

now being cut from exceptionally choice logs.

Also during the Summer months 2½ million feet of hemlock.

LET US QUOTE YOU ON YOUR REQUIREMENTS.

Head Office: 501 Kent Bldg., - TORONTO

The

Elgie & Jarvis Lumber Co.

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We are in the market for

Stocks of

Hemlock Lumber

C. G. ANDERSON LUMBER CO.

WANTED

Mill Stocks of:—

HARDWOODS
PINE
SPRUCE
HEMLOCK

We are now buying for the 1912 trade. Write us describing Stocks you have, or will have to sell. We pay CASH.

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THE trend of trade is now towards our **CUTLER** Mills, when customers want anything at **BAY** ports for water or rail delivery, and our **LUMBER** is selling itself by repeat orders from any **COMPANY** to whom we make a shipment. Our stock is **LIMITED** but we still have a goodly quantity to dispose of at prices worth while considering.

DON'T BUY TILL
YOU GET OUR
PRICES

The Eyer Lumber Co.
34 Victoria Street, Toronto
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We offer a block of 1 in. Dry White Pine 6/11 ft.

Say 85%, 4/6 in. wide, Balance 7 in. and wider.

Quality---Close enough to good to satisfy most demands.

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THE
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HAMILTON, ONT.

MATCHING, DRESSING AND RE-SAWING

done in transit at lowest prices. We are equipped to dress and bore heavy Georgia Pine Timbers.

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COMPLETE STOCK OF
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Offer at LOW FIGURE for QUICK sale:

80,000′ 2 x 4 & up 6/16′ No. 1 White Pine Mill Cull
20,000′ 2 x 4 & up 6/16′ No. 2 White Pine Mill Cull
18,000′ 1 x 4 & up 6/16′ Log Run, Dead Culls out White Birch
125,000 pcs. 1½ x ⅜ x 32″ Mill Run Hemlock Lath

All of above, shipment G. T. R. from Golden Lake, Ontario

Head Office: - EGANVILLE, ONT.

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PLAYFAIR & WHITE

Manufacturers and
Wholesale Dealers

Lumber - Lath - Shingles

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Contractors for Railway Supplies
BILL TIMBER a Specialty

Long Lumber Company
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Our Specialty
Norway and Yellow Pine
BILLS STUFF TO ORDER

Ontario Agents for
A. Cotton's XXX B.C. Shingles
10 Cars in Transit

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OTTAWA, CANADA Limited

EASTERN

Pine, Spruce, Hemlock, Hardwoods, Timber, Lath and Shingles

WESTERN

British Columbia Timber

at Lowest Prices and any Sizes.

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Everything in Lumber

Rough and Dressed

Wholesale and Retail

Want to Purchase

Dry Ash, Birch, Basswood and Rock Elm

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Wholesale Dealers in

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ROUGH OR DRESSED

For 1 x 4 and up x 6/11 ft dressing shorts.
For 5, 6 and 8/4 x 12/16 dressing strips.
For 5, 6, and 8/4 shipping cull shorts, strips and sidings.

Write us before placing your orders

18 CENTRAL CHAMBERS - OTTAWA, ONT.

Pine, Spruce, Hemlock, Lath, Birch, Maple

Good Stocks. Prompt Shipments.

INQUIRE OF

C. A. SPENCER *Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles*

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Aux Sable River Forest Reserve Timber Produces Best Lumber in Ontario.

Every lumber dealer and consumer in Western Ontario, Buffalo, Detroit, Central New York and Montreal knows what excellent lumber is produced from Playfair & White's mills at Midland, Ont. I can offer you from that point, all sizes of White Pine and Norway Pine; any quantity of the choicest lumber in the Georgian Bay district. These mills will commence sawing about May 15th.

SPECIAL:—The best block of Basswood in Ontario, estimated 2,000,000 ft. I am prepared to offer, sawn to any size required.

Other stocks of Pine, Hemlock and Spruce at Pembroke, Ottawa and Collingwood.

Quotations promptly given and enquiries solicited

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(BRANCH OFFICE)

Owen Sound, Ont.

All grades of

WHITE PINE

and

Norway Dimension Bill Stuffs

WHITE and RED PINE LATH

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Planing Mill Work

SAW MILLS
Long Lake, Ont. and Blezard, Ont.

GENERAL OFFICE
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OF PENETANGUISHENE

Manufacturers of and Dealers in

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HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

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13 Foot and 16 Foot

Lath and White Cedar Shingles

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LIMITED

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Lumber, Lath, Shingles, Bill Stuff

And all kinds of SASH FACTORY and PLANING MILL GOODS.

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Hardwood Flooring

The Celebrated Diamond Brand

End Matched, Bored, Polished and Bundled

Manufactured by

SIEMON BROS., LTD.

For prices write

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That Are Right

Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

No. 3 Pine Doors

THE

Pembroke Lumber Co.

Pembroke, Ontario

Yellow Pine and B.C. Shingles

Always in Transit

High Grade Quartered Oak and Gum a Specialty.

We have over a Million Feet of Dry Cypress in Stock.

We want your inquiries.

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32 Church Street - TORONTO, ONT.

The Harris Tie & Timber Co.,

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Cedar Poles and Posts, Piles and Bridge Timber

Track and Switch Ties

The

North Channel Lumber Co.

Limited

Successors to

SAGINAW LUMBER & SALT CO.

MANUFACTURERS OF

Pine Lumber

Saginaw, Mich. U.S.A.

Mills at Thessalon Ont.

We Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

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HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.

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Manufacturers:

Lumber, Hardwood Flooring Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

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LIMITED

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Sarnia

Buffalo

Bathurst Lumber Co., Ltd.

Bathurst, N. B.

Two modern saw mills equipped with the latest improved machinery enable us to carry always in stock a large assortment of Dry White Pine and Spruce.

Located on Bathurst Harbour for Water Shipment and on the Main Line Intercolonial Railway for Rail Shipment, we can

Reach Any Market in the World

Possessing the best standing timber in the Maritime Provinces we are able at all times to supply lumber of uniform high quality and strictly up to grade.

Stock Now Ready for Shipment

Clear and No. 1 Spruce

100M 1x4″ and up, fine stock, good widths
50M 1¼x4″ and up, fine stock, good widths
200M Scant 2x4″ and up, fine stock, good "

Merchantable Spruce

100M 1¼x6x10 ft. and up
200M 1¼x8x10 ft. and up
200M 1¼x9x10 ft. and up
50M 1¼x10x10 ft. and up
100M 1¼x5 and 7x10 ft. and up
1000M Scant 2x6x12 ft. and up
200M 2x8x12 ft. and up
300M 3x6x10 ft. and up
200M 3x8x10 ft. and up
100M 3x10x10 ft. and up

No. 3 Barn and Better Pine

5 Cars 1x6″, 10 ft. and up, nice lumber
5 Cars 1x8″x10 ft. and up, nice lumber
5 Cars 1x10x10 ft. and up, nice lumber
2 Cars 1x12x10 ft. and up, nice lumber
10 Cars 1x7″ and up, 10 ft. and up, nice lumber

Log Run Birch

150M 1¼x4″ and up, 6 ft. and up
75M 1½x4″ and up, 6 ft. and up
25M 2x4″ and up

Cedar Lath

3 Cars 1⅜x⅜x4 ft.

Write for our monthly stock list giving full particulars of our lumber ready for shipment

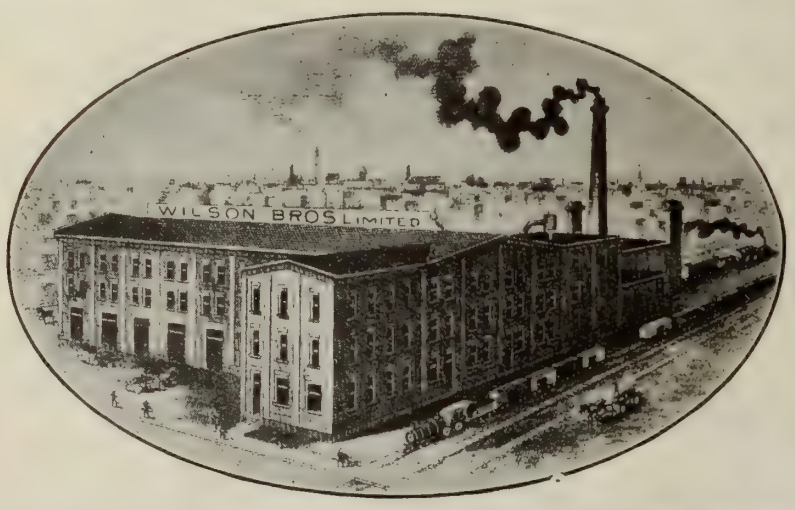
Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office: — Pacific Building, VANCOUVER, B. C.**



This illustration does not show you the largest factory in the world. But it does show you a plant that is unusually well equipped—where only experienced workmen are employed—where the highest grade materials are used—The home of

Wilson Bros., Limited, Flooring

The fact that we are one of the oldest and largest manufacturers of **Maple Flooring** in this country should give you confidence to specify and buy not only **Wilson Bros., Limited, Maple Flooring,** but also **our Beech, Birch** and **Oak Flooring. Wilson Bros., Limited, Flooring** means a carefully kiln dried and manufactured article. It is straightened, hollow-backed, bored, end matched, steel polished and bundled.

Wilson Brothers, Limited

COLLINGWOOD, ONTARIO

A Satisfied Customer

is a powerful factor in building up your business. You will always satisfy your customers with our

Hemlock, Pine and Hardwood

because it is made from the finest timber that grows—and it is **graded right.** We are the only firms to dress and size all our Hemlock lumber. You will save money on your freight—and that helps some.

We specialize in car lots—
Write us your requirements

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

J. L. Enochs, Pres. M. S. Enochs, V.P. A. F. Wortman, Sec.-Treas.

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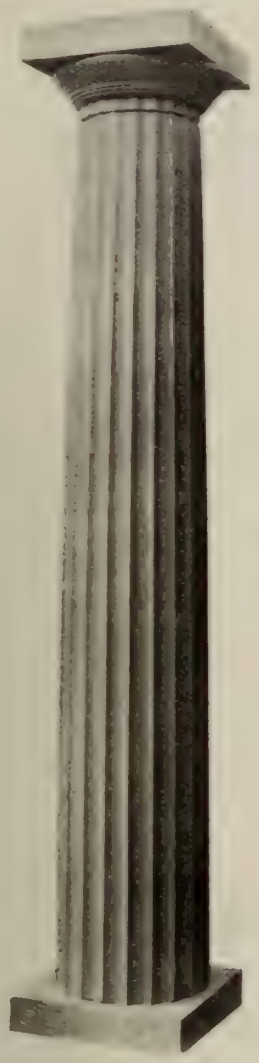
WHOLESALE YELLOW PINE

CONSTRUCTION
RAILROAD
TIMBERS

Car Material **Pole Stock**

JACKSON, MISS.



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Staved Columns Balusters Veneered and Pine Doors

A visit to our factory will convince you of our ability to fill orders promptly and satisfactorily.

Beresford Apartments, King St. West.
The above columns were manufactured by us.

Sash Newell Posts Pine and Hardwood Trim

Our aim is to maintain a h gh standard of goods and retain our old customers and make new ones.

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EVERY article we turn out is a clean-cut leader in its particular line. We invite minute inspection of our products and we are are content to be judged on the actual showing and merits of the goods themselves.

Our regular stock lines cover a variety of patterns, but we do not confine ourselves to these alone. When special designs are required we can turn them out in minimum time and with the same satisfactory result as possessed by our regular stock.

Batts Limited

368 to 380 Pacific Avenue

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B. L. No. 310, Plain Oak

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Head Office : 530-1-2-3 Rogers Building, VANCOUVER, B.C.

SHIPPERS of Every Description of Douglas Fir, Red Cedar, Spruce, Pine, Hemlock and Larch Lumber.

Sash, Doors, Mouldings, Lath, Shingles, etc., etc.

Heavy Construction Timbers a Specialty.

LENGTHS UP TO 110 FEET

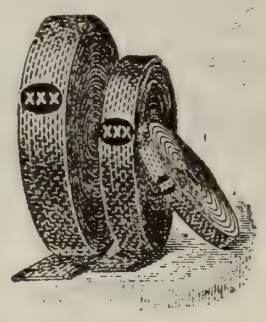
Try a car of our Extra Quality XXX Red Cedar Shingles

Rail and Water Shipments

XXX **Genuine Balata Belting**

is always good—Rubber and Leather Belting may be

The Best Balata Belt made



"World-Goetze"
Elastic Corrugated Copper
Gaskets
with
Asbestos Lining No. 2
make **positively** and **permanently tight joints** in flanged piping where nothing else will—where the best of other Gaskets fail.

"Vitite"
High Pressure
Packing

is just what its name implies—a packing designed to meet the requirements of users of high steam.

It is light in weight and stands the test.

Sizes in stock :
1/32 in., 1/16 in., and 1/8 in.

75c. per pound

"Bangor" Red Chalk

The best for wet lumber

"Victor 200"
Valve Discs
with Inlay of Asbestos

are the most effective combination that has been worked out.

They will outlast six rubber or composition discs.

Interchangeable with Jenkins' and similar type of valves.

Orders filled promptly. If you're in a hurry send your order by "Lettergram" or "Night Letter" at our expense.

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Manufacturers of

Fir, Cedar and Hemlock Lumber

SPECIALTIES:

AA1 Brand Cedar Shingles
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Mills at Vancouver, B.C. Daily Capacity 350,000 ft. Mills at Ruskin, B.C.

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Lumber, Shingles, Doors, Mouldings, Finish, etc.

Specialties: AA1 BRAND HIGH GRADE SHINGLES
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Fence Posts, Telephone and Telegraph Poles
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Selects
Shops
Commons
and
Mouldings

THE HALL MARK OF QUALITY

Larch

Timbers
Yard Stock
Clears
and
Mouldings

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For low prices and prompt shipment of

Yellow Pine Timbers
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Chestnut --- Oak --- Ash
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The

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Fir and Cedar Lumber, Lath Shingles, Doors, Windows Mouldings and Finish

Mills at:—VANCOUVER, B.C., PORT MOODY, B.C., PORT ALBERNIE, B. C., PINGSTON CREEK, B.C.

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UNITED LUMBER & SHINGLE MILLS

LIMITED

Fir
Cedar
Spruce

Our New Modern Plant is Completed

CAPACITY PER TEN HOURS

Saw Mill, 100,000 ft.
Planing Mill, 75,000 ft.
Shingle Mill, 100,000 Shingles

MIXED SHIPMENTS IS THE BUSINESS WE ARE AFTER

Mr. Retailer Let Us Hear from You

Timbers
Up to 80 Feet Long
Dimensions
Flooring
Ceiling
Siding
Finish
Mouldings
Shingles
Etc.

NANOOSE BAY, VANCOUVER ISLAND

Sheppard & Morse Lumber Co.

Manufacturers of

White and Red Pine and Spruce

Head Office, Boston, Mass.
Saw Mills at Ottawa, Ont.
Factory at Burlington, Vt.
Branch Office in New York

W. M. RITTER LUMBER CO., Columbus, Ohio

We Ship Annually over 100,000,000 Feet

Prompt Shipments

Mixed Cars

Dry Kilns

No Mixed Grades

All Band Sawed and Our Own Manufacture

Ontario Representative: JOHN HALL, 266 Huron Street, Toronto, Canada. Phone College 907

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

J. M. CLIFFORD & CO.

Manufacturers and Dealers in all Kinds of

HARDWOOD LUMBER

POPLAR BASSWOOD CYPRESS ELM OAK ASH MAPLE

We have a full stock of the above thoroughly air dried. Complete line and high grades. Prompt shipments on mixed cars.

Best Quality **Uniform Grades** **Low Prices** **Get Our Quotations Before Buying**

DETROIT - - MICH.

Manufacturers of Foreign and Domestic Hardwood Lumber and Veneers.

Ohio Veneer Company

— Importers of —

MAHOGANY AND FOREIGN WOODS

Office and Mills: **2624 to 2634 Colerain Ave., CINCINNATI, OHIO.**

R. A. Wells Lumber Co.

Wholesalers and Exporters of

Hardwood Lumber

of All Kinds

Special attention to Canadian trade. Prompt Shipments

Our speciality is 1″ to 2″ Gumwood, 1″ to 2″ Oak, both plain and quartered stock, 1″ to 2″ Ash and 1″ Cottonwood.

WRITE US BEFORE BUYING

230 S. LA SALLE STREET - CHICAGO, ILL.

THE SOUTHERN LUMBER AND BOOM CO.

SALES OFFICE, CINCINNATI

Band Mills: Valleyview, Ky., Glendora, Miss.

Manufacturers

OAK GUM
POPLAR CHESTNUT
ASH CYPRESS

Hardwoods for Quick Sale

We want to move the following stock quickly:

4/4 and 5/4 No. 2 Common and Better Basswood; 4/4 No. 2 Common and Better Brown Ash; 4/4 and 5/4 No. 2 Common and Better Birch, strictly unselected for color; 4/4 and 5/4 No. 1 and 2 Common Flooring Maple; and 4/4, 5/4, 6/4, 8/4, 10/4, 12/4 and 16/4 Firsts and Seconds Maple. All stock dry and in shipping condition, and either car or cargo shipments.

W. H. White Company **Boyne City Lumber Co.**
Wholesale Yards at Buffalo, N.Y.
Mills at Boyne City, Michigan

Duhlmeier Brothers Manufacturers Hardwood Lumber

MILLS { Kentucky, Tennessee, Mississippi.

Main Office and Yards { **CINCINNATI, OHIO**

We now have in stock dry and ready for prompt shipment 500,000 ft. of 1-in., 1¼-in., 1 1/2 and 2-in. plain Red Oak, nice soft texture, good widths, good lengths. Also a nice stock of Red and Sap Gum, Plain and Quartered Cut Oak. Let us quote you delivered prices.

OUR LUMBER IS MANUFACTURED RIGHT AND GRADED RIGHT. WE CAN SHIP QUICK.

Eastern Representative **James H. Walsh,** **95 W. Mohawk St., Buffalo, N. Y.**

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

Phone Main 6386

Mills: Knoxville, Tenn.
Walland, Tenn.
Franklin, Va.

The Atlantic Lumber Co.

Incorporated

Head Office: BOSTON, MASS.

Manufacturers Southern Hardwood Lumber

Canadian Branch
211 Kent Building, 156 Yonge Street, Toronto
Robert Vestal, Manager

ANYTHING IN OAK LUMBER

We have the following stock we are anxious to move, let us quote you on it:

250,000 ft. 1 in. No. 2 Com. and Btr. Basswood
1,000,000 ft. 1 in. No. 2 " " Hard Maple
40,000 ft. 1 x 4 in. 1 face and 2 faces Clear Birch Strips
50,000 ft. 2 in. 1sts and 2nds Unselected Birch
400,000 ft. 1 in. No. 1 Com. Unselected Birch
50,000 ft. 1 in. No. 2 Com. Unselected Birch
100,000 ft. 1 in., 10 and 12 ft. Moulding Birch

Other Northern Hardwoods in complete assortments

BRADLEY TIMBER & RAILWAY SUPPLY CO.
Second Floor Palladio Bldg., DULUTH, MINN.

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

Wistar Underhill & Nixon
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Canadian Rep. - W. J. Anderson, 288 South St., London, Ont.

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MANUFACTURERS OF

Yellow Pine

OUR SPECIALTIES:
Long Leaf Timbers and Implement Stock.
Short Leaf Finish.

Stock Exchange Bldg. - Chicago, Ill.

Y NOT

buy your Hardwoods direct from

THE MANUFACTURER

Can Furnish Anything In---

Kentucky's Best

Quartered White Oak
Quartered Red Oak
Plain White Oak
Plain Red Oak
Poplar
Walnut
Hickory
Ash

Mixed cars furnished at same prices as straight cars.

J. V. STIMSON & CO.,
OWENSBORO, Kentucky

Yellow Poplar Lumber Co.

Manufacturers of Band Sawed
Poplar, Quartered Oak, Plain Oak, Chestnut, Basswood

SPECIALTY:
Quarter Sawed White Oak

COAL GROVE, Ohio, U.S.A.

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

Long-Knight Lumber Co.

Manufacturers Indiana and Southern

Hardwoods

OAK, ASH, CYPRESS Our Specialties

Address all inquiries to the Main Office at—

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Theo. Fathauer W. M. Hopkins

Theo. Fathauer Co.

WHOLESALE HARDWOOD LUMBER

Our Specialties

Plain and Quartered White Oak. Figured and Plain Red Gum

Southern Yard - Helena, Ark.

Address correspondence to
1428 Cherry Ave., Chicago

YARDS: ORLEANS, IND.; FORT WAYNE, IND.; PAOLI, IND.

S. P. Coppock & Sons' Lumber Co.

Manufacturers of and Dealers in

Hardwood Lumber

Indiana Quartered Oak
Ash, Basswood, Poplar

Main Office - FORT WAYNE, IND.

OUR SPECIALTY:

Anything in HICKORY LUMBER

Canadian Representative, MR. S. D. SMITH

Pearl City Veneer Company

Manufacturers of

Veneers and Panels

IN ALL NATIVE WOODS

We have for quick shipment:

Three Ply End Panels, Drawer Bottoms and Glass-backs.

Our shipping facilities for Canadian trade are unequalled.

Enquiries solicited and quotations promptly given.

Factory and Office:

Steele Street, JAMESTOWN, N. Y.

W. O. King & Co.

HARDWOOD LUMBER

Our Specialties

Michigan Hard Maple, Birch and Basswood

2452 S. Loomis St., CHICAGO, ILL.

DRY BEECH

We want to move 200,000 feet 5/4—No. 1 and better dry Beech. A Snap at the Price.

Also quick deliveries on NORTHERN HARDWOODS, YELLOW PINE, OAK DIMENSION, FIR, HICKORY, OAK, CAR STOCK and PILING.

Estabrook Skeele Lumber Co.
Manufacturers and Wholesalers
CHICAGO, ILL., U. S. A.

ASH BASSWOOD CHESTNUT CHERRY COTTONWOOD

BUCKEYE CYPRESS MAHOGANY

Need any Oak?
Need any Poplar?
Need any Chestnut?

OUR SPECIALTY—The supplying of high class lumber—at right prices.

Shipment direct from mill—good grades.

YOU CAN'T AFFORD to manufacture Oak Flooring when you can buy it—ready to lay—at our prices.

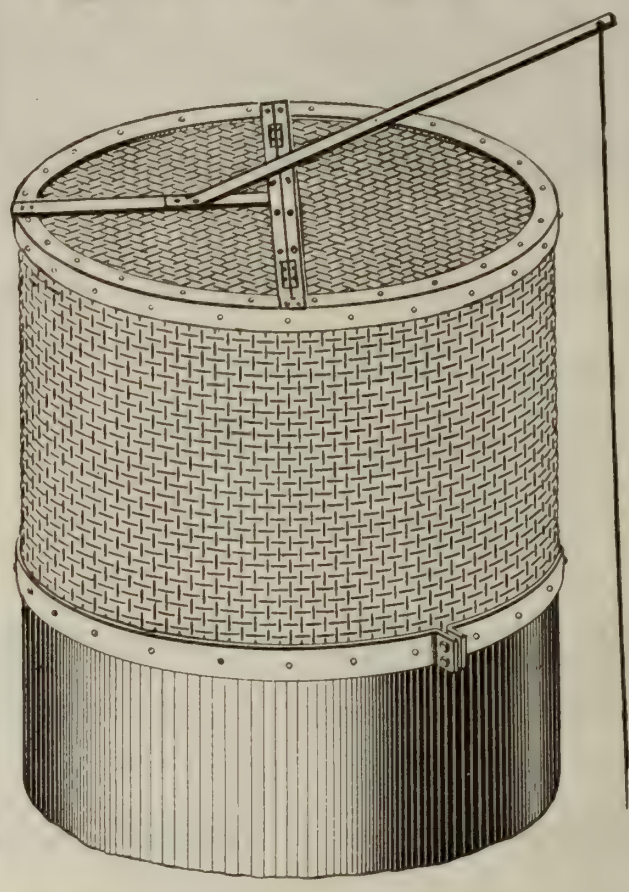
CAN MAKE PROMPT DELIVERIES

THE F. T. PEITCH CO.,
CLEVELAND, OHIO

GUM POPLAR SYCAMORE

PLAIN AND QUARTERED OAK YELLOW PINE

Spark Arresters



and

Refuse Burner

Steel Wire Cloth

Illustrating Our Adjustable Arrester

Shall be glad to name you prices We manufacture Wire Guards for all purposes

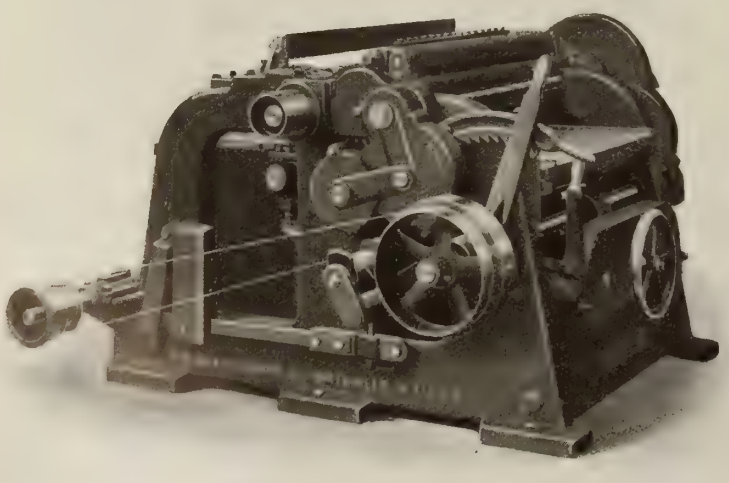
Canada Wire Goods Mfg. Company
HAMILTON, ONTARIO

SMITH OF SMITHVILLE

Woodworking Machinery

The **New Cabinet Planer** is fitted with **Round 4-knife Head** and **Self-hardening Cutters** also with **Sectional Feed Rolls** and **Sectional Chipbreakers.**

These machines are made in three sizes, viz: 30, 36 and 42 inches wide, and will plane stock as thick as 7 inches.

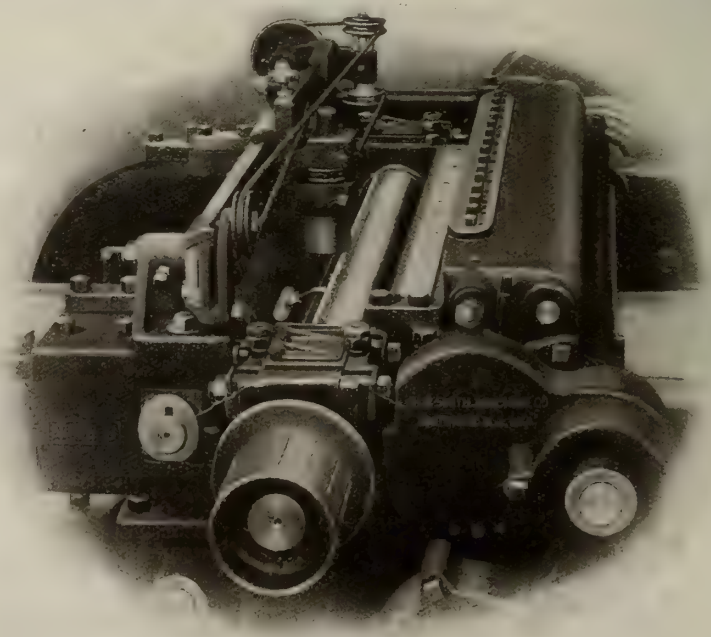


Work-side of New Cabinet Planer

The knives are jointed on the machine so that **all** will cut, and they are ground by the grinding attachment shown annexed.

For full particulars concerning above and more than 150 other Woodworking Machines address;

H. B. Smith Company, Smithville, N. J., U. S. A.
New York, Chicago, Atlanta, San Francisco



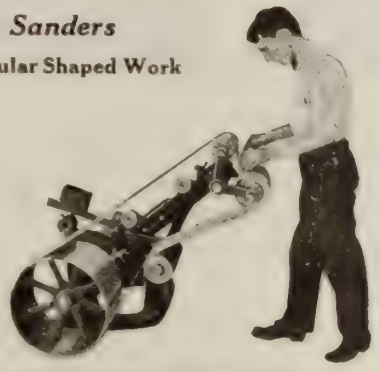
Showing Grinding Attachment and Device for holding the Head while grinding to proper cutting angle after being jointed.

No. 111 Pneumatic Roll Sander

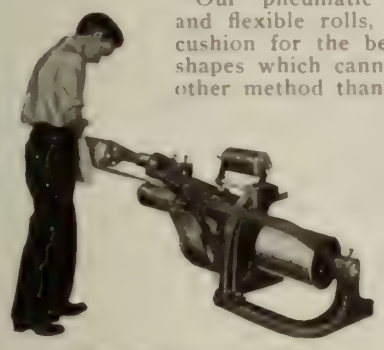
Most Universal of Belt Sanders

Handles an Unlimited Variety of Irregular Shaped Work

The newest wrinkle in sanding machinery, embodying a principle of great value and usefulness in wood finishing, which gives it an adaptability and effectiveness unapproached by any other machine of this type. Extended tests in the largest woodworking factories in the country, clearly show that in actual service it has set a new standard of speed and economy in sanding difficult work of every sort, much of it that no other machine can do at all



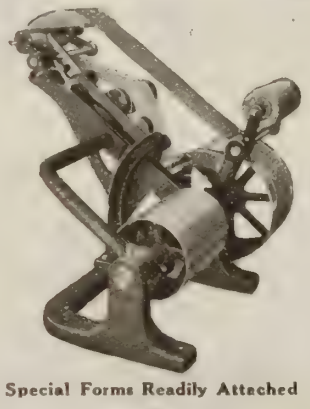
Sanding a Cross Veneered Swell Drawer Front



Using the Pneumatic Roll

Our pneumatic roll is different from other drums and flexible rolls, the air forming a true and yielding cushion for the belt, permitting it to adapt itself to shapes which cannot be sucessfully sanded by any other method than hand work. Lightly inflated, the pneumatic roll conforms to any rounded or oval shape; fully inflated, it forms a barrel-shaped cushion for sanding concave surfaces. In either case it takes the vibration from the operator's hands, enabling him to handle work more easily and therefore more rapidly. Using a long sand belt, in place of tubes or sleeves of sandpaper, is another advantage.

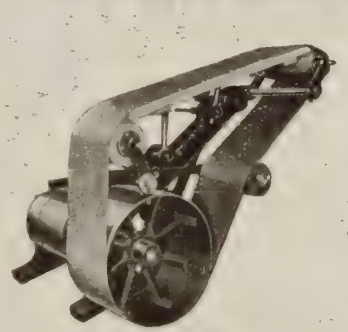
For Sanding Irregular Shapes



Special Forms Readily Attached

Such as table legs, either flat, oval, straight or curved, cross-veneered, swell or serpentine drawer fronts, shelves for cabinets, claw legs, rounded-over toilet frames, veneered posts, chair seats and backs, cross veneered O. G. mouldings, half or quarter round mouldings, mirror frames and standards, closet seats and covers, moulded arms, or in fact anything that can be easily handled, it is unequalled in the perfection of its work, in its convenience for the operator, and in its capacity.

The Main Idea in the Machine Itself



Flat Table in Position

has been to make it thoroughly convenient to work at. In this important respect it is superior to any other belt sander. And the construction is equal to the design. The main column or arm, which is adjustable to any position, is rigidly braced, and hinged on sleeves independent of the shaft. The rolls and drum all run in ball bearings. The travel of the sand belt is instantly reversible, so operator can use either the upper or under side of the drum, have the belt run from him and always sand with the grain.

A Postal Brings Detail Sheet with Larger Cuts and Full Description

C. MATTISON MACHINE WORKS - 887 Fifth Street, Beloit, Wis.

Wire Rope

We manufacture different rope for different purposes

SWEDISH CHARCOAL
CRUCIBLE CAST STEEL
MILD PLOW STEEL
BEST PLOW
ACME BRAND
GALVANIZED
SIEMENS-MARTIN
GALVANIZED STRAND

State kind of rope required or purpose to be used for.

WRITE FOR CATALOG

The B. Greening Wire Co., Ltd.

Montreal, Que. Hamilton, Ont.

128,350 Laths in Ten Hours

Five-Saw Lath-Mill

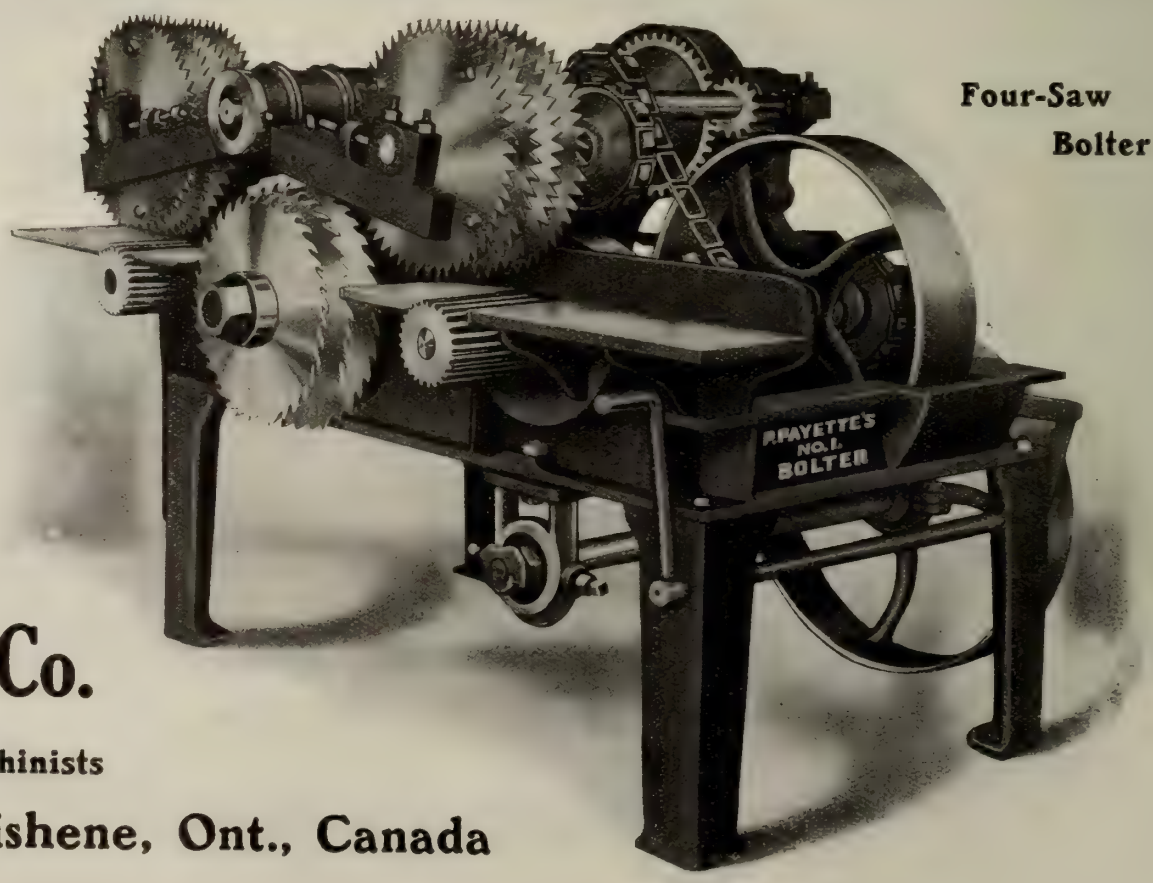
Our Lath-Mill and Bolter have made a test cut in ten hours of 128,350 four foot Laths, 1½ in. by ⅜ in., counted, tied and piled.

We also make a full line of Lath-Mill and Picket-Mill Machinery, for mills, both large and small.

We also manufacture the following High-Grade Saw-Mill Machinery:—New Modern Saw-Mill Carriages, with either three or two head-blocks; P. Payette's New Patent Saw-Mill-Dog, for use in either winter or summer; P. Payette's Grip-Set Works; Steam Feed Valves, Steam Lifter and Loaders Valves. Five different class and style of Edgers, for either light or heavy duty. Combined Gang-Circulars and Edgers, or Independent Gang-Circulars.

Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets. Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.

Descriptive Booklet and prices mailed free upon request



Four-Saw Bolter

P. Payette & Co.

Engineers and Machinists

Penetanguishene, Ont., Canada

Georgian Bay Shook Mills, Limited

Midland, Ontario

Saw Mill Operations — THE THUNDER BAY LUMBER COMPANY — La Fontaine, Ontario

The Largest Plant in Canada, Manufacturing Planing Mill Products.
(Located in the Heart of the Canadian Lumbering Industry).

PINE DOORS	**SASH**	**TURNINGS**	**BENCH WORK**	**SHOOKS**
VENEERED DOORS	**MOULDINGS**	**TRIM**	**JOINERY WORK**	**BILL STUFF**
FRAMES	**HARDWOOD FLOORINGS**	**MILL WORK**	**COLUMNS**	**DRESSING, Etc.**

We Manufacture from the Log to the Finished Article and supply everything for House-Building that is made of wood.

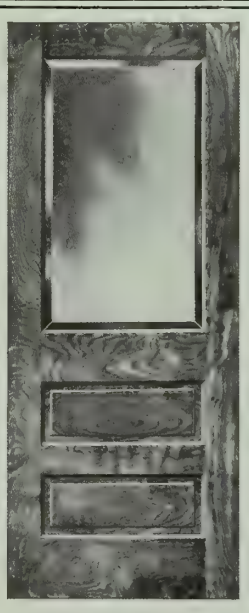
We have complete lines of Stock Design Goods in all departments and carry ample stocks at all times.

We make a specialty of Veneered Doors and have the largest factory capacity in this line in Canada. Send for our handsome Veneer Door Catalogue.

WE GUARANTEE

1. High Grade Goods. 2. Prompt Shipments. 3. Satisfaction.

Ask us for Quotations. Send for our Catalogue of Stock Designs. Special Attention to Details.



———: Resident Representatives :———

MONTREAL—Louis Rolland 234 Coristine Building, Montreal
TORONTO —Maurice J. Emmett 203 Telephone Building, Toronto
WINNIPEG—J. Malcolm Suttie, Travellers Building Winnipeg
GUELPH —H. A. Clemens, Telephone Building Guelph

Travelling Representative :—W. T. Thomson, Paris, Ontario.

PLANT AND OFFICES - - - - MIDLAND, ONTARIO

This Advertisment Should Interest Every Man Who Uses Belting

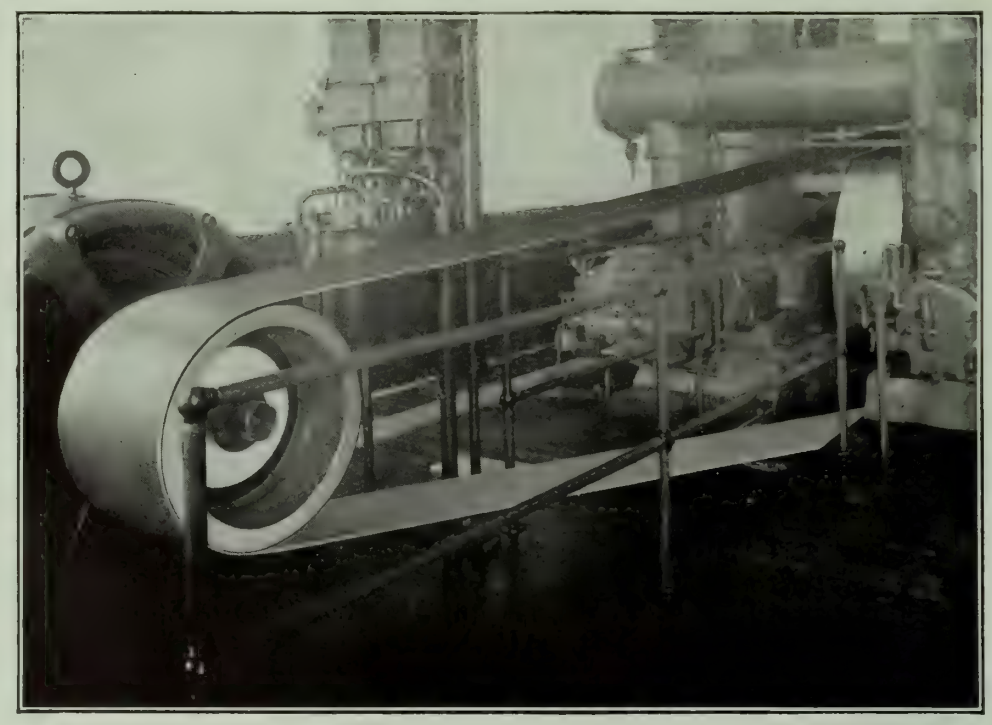
SCANDINAVIA BELTING — FEDERAL ENGINEERING & SUPPLIES LTD. TORONTO

SCANDINAVIA BELTING — FEDERAL ENGINEERING & SUPPLIES LTD. TORONTO

ON ALL your direct drives whether straight or crossed, it will pay you to use Scandinavia Belt. Scandinavia Belt has a good surface for gripping the pulley, its tensile strength is enormous. It runs true. It can be used in either a wet or a dry place. (We do not however recommend it for places where the conditions are alternately wet and dry).

It runs exceptionally straight on the pulleys. Scandinavia Belting will save you money in both the first cost and in the maintenance.

For drives where the conditions of moisture are constantly changing from wet to dry, we recommend our Lanco Balata Belting to which we call your attention below.



TRADE MARK LANCO BALATA BELTING

TRADE MARK LANCO BALATA BELTING

Lanco Balata Belting can be used under almost any conditions except those of heat. This belt is made of 38 oz. duck, woven as tightly as it is possible to weave it, and is then well filled with a Balata solution, and heavily callendered. It is stretched in the process of making, and after being filled with the Balata solution, does not "go back." Lanco Balata Belt is as nearly stretchless as it is possible to make a belt, the maximum stretch being about three quarters of an inch in ten feet.

We carry a large stock of both Lanco Balata and Scandinavia Belting in Toronto and Montreal.

Our Balata Belts can be made endless on short notice.

We have issued some very handsome bulletins on both the above belts, and would be very pleased to send either or both to you on application.

Federal Engineering & Supplies, Limited

Toronto and Montreal

DEATH TOLL AT NIAGARA IS 40; ONLY 3 ARE MEN

37 Women and Children Swept Toward Falls When Engle Park Pier Collapsed.

18 BODIES ARE IDENTIFIED

Medical Examiner, Who Saw the Wreckage, Declares Planks Were Rotten and Had No Supports.

Is your Dock Safe?
Is Your Trestle Strong?
Do You Require Derrick or Building Timbers?

Our Business is Supplying Large and Unusual Size Timbers Quickly

—IN—

Long or Short Leaf
Yellow Pine

—OR—

Douglas Fir

Complete Facilities for RIPPING, DRESSING, BORING, TURNING

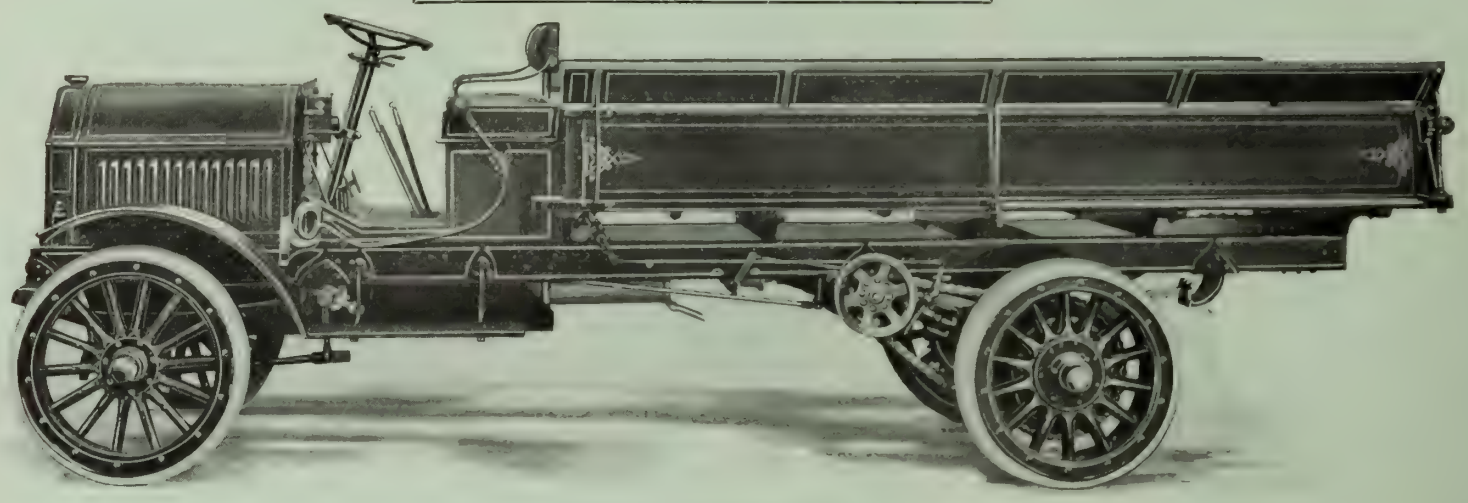
Don't wait until you lose your customer through delay, or your good name by a calamity. Tell your timber troubles to

TREXLER LUMBER COMPANY

THE PROMPTEST SHIPPERS OF YELLOW PINE

30 CHURCH STREET Phones, Cortlandt 2890-2891 NEW YORK, U. S. A.

Schacht



MODEL No. 21 4-TON TRUCK

SPECIFICATIONS: **Motor,** 45-50 H.P., four cylinders, water cooled—**Ignition,** magneto, with double system—**Oiling,** plunger pump in crank case, separate feeds to all bearings, with splash system—**Gasoline,** 22 gallons, gravity feed—**Clutch,** cone, thermoid faced, 15½ in. diameter—**Drive,** propeller shaft to jackshaft, double side chains, 1½ in. pitch to rear axle—**Transmission,** selective sliding gear, 3 speeds forward and reverse—**Brakes,** service, internal expanding on rear wheels, 18 in. drums. Emergency on each end of jackshaft—**Frame,** rolled steel channel section, 6 in. side members—**Frame,** 217¾ in. long, 38¾ in. wide—**Springs,** rear, 50x3, 19 leaves, semi-elliptic. Front, 40x2½, 11 leaves, semi-elliptic—**Axles,** rear, rectangular, 2¾ in. wide, 4 in. deep, drop forged. Front, Timken, I beam with solid section through centre, 2 in. wide, 2¾ in. deep, dropped forged—**Bearings,** Timken roller bearings in wheels jackshaft and steering knuckle, annular bearings in transmission—**Tires,** 36x4 in. single front, 36x5 in. dual rear—**Wheel Base,** 144 in.; tread, 64 in.—**Speed,** 10 miles per hour on direct—**Loading Space,** 11 ft. 5 in. back of seat on chassis frame—**Weight of Chassis,** 5,200 pounds—**Body,** to order.

LUMBER TRUCKS

Schacht Power Trucks are especialy designed and built for heavy work, long hauls, continuous and dependable service, and are popular with lumbermen, whether for camp duty or wholesale and retail delivery service.

Schacht Power Trucks mean added profits. We can show you where present losses in your hauling can be turned into profits and where the Schacht Truck will prove to be one of the biggest dividend payers in your business.

We urgently invite enquires and will gladly give expert advice as to the saving the Schacht Truck will effect in your business.

Schacht Motor Car Company of Canada Limited

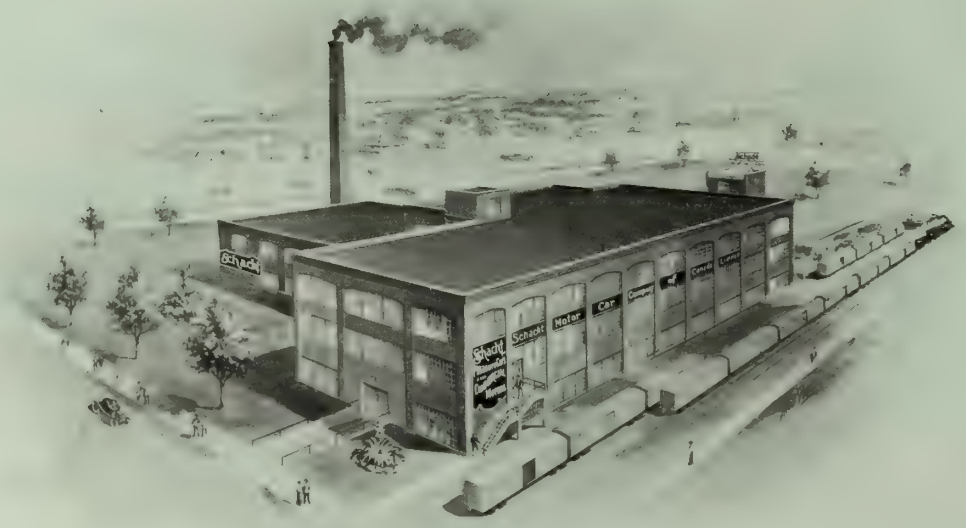
Hamilton :: Ontario

Pleasure Cars

Delivery Cars and

Heavy Duty Trucks

of 1-ton, 2-ton, 3-ton and 4-ton Capacities

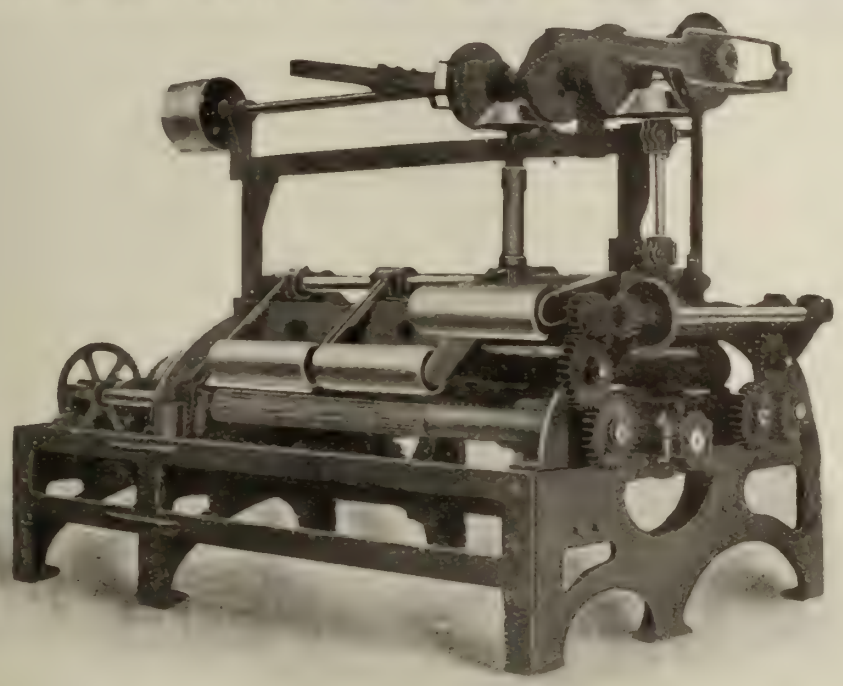


The Truck with good disposition —built for Canadians with Canadian money.

YOUR GUARANTEE OF OUR PERMANENCY IN BUSINESS

Saw Mill Machinery

For Good Saw, Lath and Shingle Mill Machinery come to Gravenhurst, Ontario, where we have designed it for nearly 50 years



"Jumbo" Combined Gang and Edger

This is a very complete machine and embodies every detail of construction essential to an adequate gang edger. ¶ We have some very flattering testimonials for our "JUMBO."

Mandrel: 4½ inches by 10 feet 6 inches long.

Drive Pulley: 20 inches 20 inches.

Saws: 2 movable saws on edger side (more if desired) 8 stationary saws on gang side, 2 water boxes.

Our latest model is an improvement on the one illustrated here

Let us quote you when you are in the market for Saw, Lath or Shingle Mill Machinery or Repairs

Mowry's Improved Silent Set Works

A new patented machine which discounts anything of the kind now on the market. Strong, compact and accurate. No ratchets, no noise, no lost motion. Grip is positive. Oil or water will not effect. Can be placed on any carriage. Will last a lifetime. Low in price Recommended by many millmen now using them.

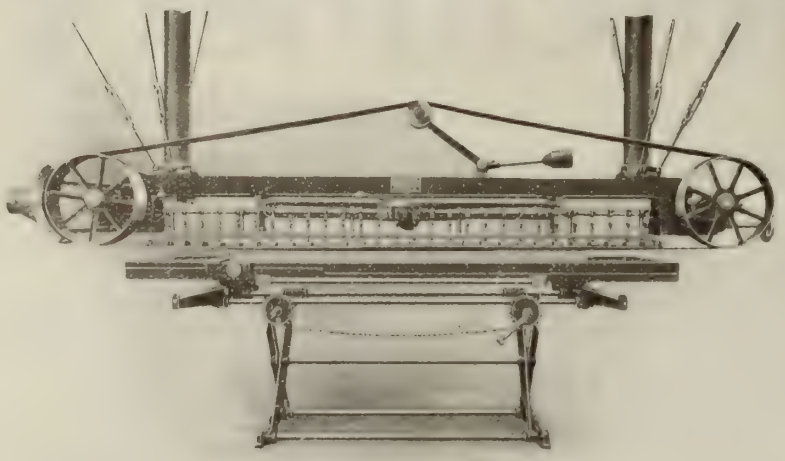
We are confident these Set Works will give satisfaction, and we will send them to any responsible party on 30 days trial, and we will assume the responsibility.

Write for prices. Send size of set shaft and say whether right or left hand carriage.

Mowry & Sons

Gravenhurst, Ontario

The Schimmel Spiral Belt Sander



Suspended Model—Made also in 6′ and 8′ Standard Models.

This machine is designed for the rapid and economical sanding of all surfaces whether flat, curved, or irregular. It will replace six to eight men sanding by hand, and produce a surface superior to hand finish. In sash and door, interior finish, bank and office fixture concerns, it will earn back its initial cost in sixty to ninety days. Installed in the majority of up-to-date wood-working factories in the United States. Over fifty at work in the Dominion.

You cannot afford to be without this master machine.

Prices, terms and catalogues on request.

A few Canadian Users:

Knechtel Furniture Co.
Rat Portage Lumber Co.
Batts, Limited.
John B. Smith & Sons, Ltd.
Geo. McLagan Furniture Co.
Doherty Piano & Organ Co.
Durham Furniture Co.
Andrew Malcolm Furniture Co.

SCHIMMEL, REID & CO., Faribault, Minn., U. S. A.

Manufacturers of All Kinds of Belt Sanding Machinery

J. F. EBY
President

HUGH BLAIN
Vice-President

Headquarters for Camp Supplies

We carry the largest and best assorted grocery stock and thus are in a position to make
IMMEDIATE SHIPMENT OF YOUR ORDERS

TEAS—We have an exceptionally fine brand of MIXED TEA.....**16c. lb.**

A good bodied, good liquor Tea well worth 2c. lb. more

Our STANDARD BLENDS in the better grades are unequalled

COFFEES—We Import, Roast and Blend all our Coffees and can give you the best that money can buy.

CANNED GOODS—Finest quality, new seasons pack, at the lowest prices.

MINCE MEAT—Our own manufacture. Although this year all ingredients are higher than last, we have **not** advanced our quotations.

Try our "CABIN" brand at 6c. lb.

All lines of staple groceries at Rock Bottom Prices. Quotations upon request

Wholesale Grocers **EBY-BLAIN, LIMITED** Importers and Manufacturers

TORONTO

A Half Century

of experience in putting up camp supplies enables us to guarantee you every satisfaction in using our products.

The "MATTHEWS-LAING" products are favourably known in all parts of Canada. A trial order will demonstrate their superior qualities.

Heavy Canada Mess Pork
Heavy Short Cut Pork
Clear Fat Backs
Long Clear Bacon
Smokes, Hams and Bacons
Pure and Compound Lard
Fresh Killed and Frozen Beef
Butter, Cheese and Eggs

Meats Specially Cured for the "Keep Over" When Desired

Write, wire, or phone for prices, and our representative will wait upon you.

Matthews - Laing Limited

Toronto Montreal Hull Peterboro Brantford

Buyers of Groceries and Provisions

BEFORE placing your next order for Camp Supplies let us quote you prices for list of requirements. We make a specialty of this class of business.

Orders shipped promptly and we guarantee the quality of all goods shipped.

H. P. Eckardt & Co. *Wholesale Grocers*
Cor. Front & Scott Sts., Toronto

The Young Company, Limited

Wholesale Grocers

Lumbermen's Supplies

Complete Stocks

Prompt Shipments Liberal Treatment

Warehouses at:

Sudbury North Bay Toronto

German Sauer-Kraut

Pickles in Brine

Bulk Pickles in Pails

Vinegar Catsup

Carloads a Specialty **Camps Supplied**

We are the largest Sauer-Kraut manufacturers in Canada

Taylor & Pringle Co., Ltd.

Owen Sound, Ont.

Wm. Milne & Son, Ltd.

Manufacturers:

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.
Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

Spanish Mill

White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel shipment only.

Dr. Stewart's Veterinary Remedies

THE SAME UNIFORM QUALITY THAT HAS MADE THEM FAMOUS FOR 30 YEARS

Stewart's Sure Cure (antisceptic gall cure) the original in liquid form	8 oz. bottles	$5.00	doz.
	16 oz. "	9.00	"
Stewart's Excelsior Liniment	16 oz. "	5.00	"
	32 oz. "	9.00	"
Stewart's Lightning Colic Cure, the only colic cure that removes the cause	16 oz. "	7.00	"
Stewart's Pure Condition Powders	2 lb. air tight can	4.50	"
Stewart's Hoof Ointment	1 lb. can	5.00	"
Stewart's Heave Relief	large can	5.00	"
Stewart's Cough and Distemper Cure	50 doses to bottle	5.00	"
Stewart's Proud Flesh Powders		2.50	"

Palmer's Family Remedies are Sold with the Strongest Guarantee

Palmer's Pine Balsam	$18.00 per gross
" Laxa Grip Cure	18.00 "
" Pain Remedy	18.00 "
" Carbo-Healing Salve	18.00 "
" Stomach and Liver Pills	18.00 "
" Kidney Pills	18.00 "
" Wild Strawberry Cordial	18.00 "
" White Liniment	18.00 "

Palmer Medical Co., Limited, Windsor, Ont.

Are your horses of use to you?

This seems an absurd question—and the answer is always **"Of course they are"**—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	$4.50 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	15.00 doz.

Johnson's Horse Liniment, No. 2 (an oil liniment)

1 gal. jugs (Imperial)	3.00 gal.
1 lb. bottles	6.00 doz.
2 lb. bottles	11.00 doz.

Johnson's Horse Colic Remedy

A sure and speedy cure for all kinds of Colic

1 gal jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz,

Johnson's Veterinary Healing Ointment (Gall Cure)

2 lb. tins	2.25 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 doz.

Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, Collingwood, Ont.

An Ideal Camp Oufit

McClary's "Algoma" Range

with new open Hot Water Tank

Assuring a constant and large supply of boiling hot water.

Open tank of 32 gallon capacity with large draw-off tap.

RUST PROOF — DURABLE

The "Algoma" is a powerfully built Steel Range specially constructed for camp work. Has large Cooking capacity and extra large oven.

Factories and Head Office:
LONDON, ONTARIO

McCLARYS

BRANCHES:
Toronto, Montreal, Winnipeg, Vancouver, St. John, Hamilton, Calgary, Saskatoon

ORDER THIS VALUABLE COMBINATION AT ONCE

The Midland Shoepack Factory

We manufacture the only watertight Shoepack in Canada. Our work is all sewn with 12 cord No. 15 Barbour's Shoe Thread and does not rip if worn for three or four years. We **DO** keep the water out. A trial is all we ask. Write for Catalogue.

A. W. Yager, Proprietor, Midland, Ont.

HEWSON'S

Pure Wool
Untearable

MACKINAW

Insures health, warmth and comfort in cold weather.

The ideal clothing for the hunter and woodsman.

Hewson's Untearable Tweeds

Hewson's Bannockburn Tweeds

Hewson's Unshrinkable Underwear

The Lumberman and Contractor who insists on getting these lines will have the best that Canada produces.

Made from the famous Nova Scotia Wool.

The name "HEWSON" is a guarantee of quality.

Made only by—

HEWSON PURE WOOL TEXTILES LIMITED

Operating Hewson Woollen Mills **AMHERST, Nova Scotia**

CHAINS

Interlocking Rivetted Pintle Chains

Specially constructed for lumber and saw-mill service

Manufactured by Chain Belt Co., Milwaukee, Wis.

All standard sizes carried in stock

Sold exclusively in Canada by **The A. M. ELLICOTT COMPANY, Montreal, Que.**

Elevating, Conveying and Transmission of all kinds a specialty

"WOOSTER" BELTING

Waterproof *Steam Proof* *Oil Proof*

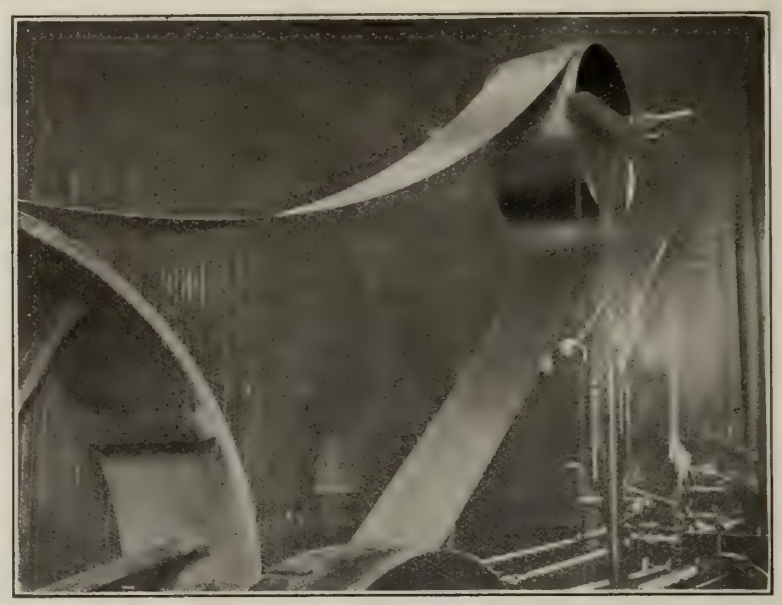
Lower in Price

than any other standard make of belting and

Higher in Efficiency

actual use life, measured in Horse Power Hours is the only economic transmission test.

Prove it to yourself by a trial installation



30 inch Heavy Wooster Belt on Main Drive. "Slack running **without slippage**"

A solid-woven fabric, treated with a protective waterproofing compound.

Uniform in Strength
Self-Lubricating

NO Laps Plies Cements Gums Stitches Internal Friction

Carried in stock by **THE A. M. ELLICOTT CO.** *Sole Eastern Agents*

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Rails–Yard Locomotives–Cars

NEW AND SECOND-HAND

For Further Information Write to

12 to 80 Pound Rail Carried in Stock

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Time is Money

The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western - Globe - Kearney & Foot-McClellan - J. B. Smith

are rapid cutters made by

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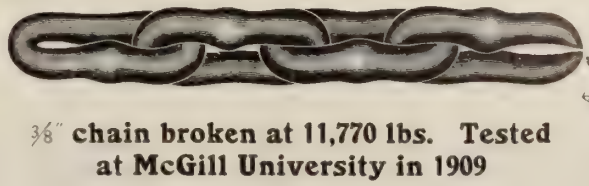

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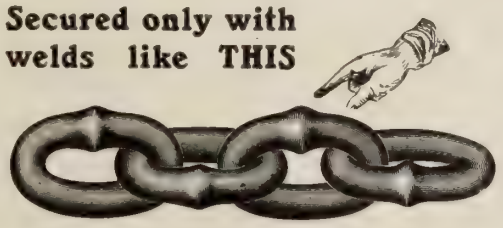
⅜" chain broken at 11,770 lbs. Tested at McGill University in 1909

25% More Weld = 25% More Strength = 25% More Wear

Secured only with welds like THIS



Tested Steel Chain made at St. Catharines, Ont.

Sold by

McKinnon Chain Co., BUFFALO, N.Y.

"CAMEL HAIR" "CAMEL" BRAND BELTING — TRADE MARK REG.

The Belt you will eventually use

BECAUSE—It withstands heat, cold, damp, wet and chemical fumes.

BECAUSE—It is uniform in the thickness and runs true.

BECAUSE—Of its great strength, almost twice that of oak-tanned double leather.

BECAUSE—It costs no more, all things considered.

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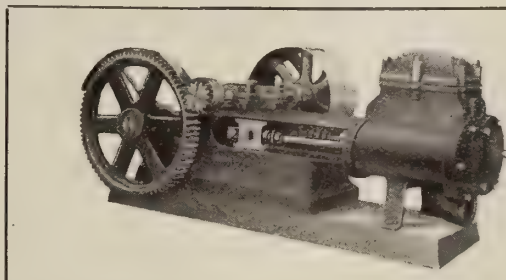
MONTREAL TORONTO

We Manufacture

Steam and Power Pumps, Condensers and Travelling Cranes, Etc.



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HAMILTON, - ONTARIO

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Manufacturers of

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LUMBER of all kinds :—
Clapboards, Shingles and Pulpwood

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EAST ANGUS
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Manufacturers of

Kraft Paper, Sulphate Pulp,

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Clapboards, Shingles and Lumber

of every description

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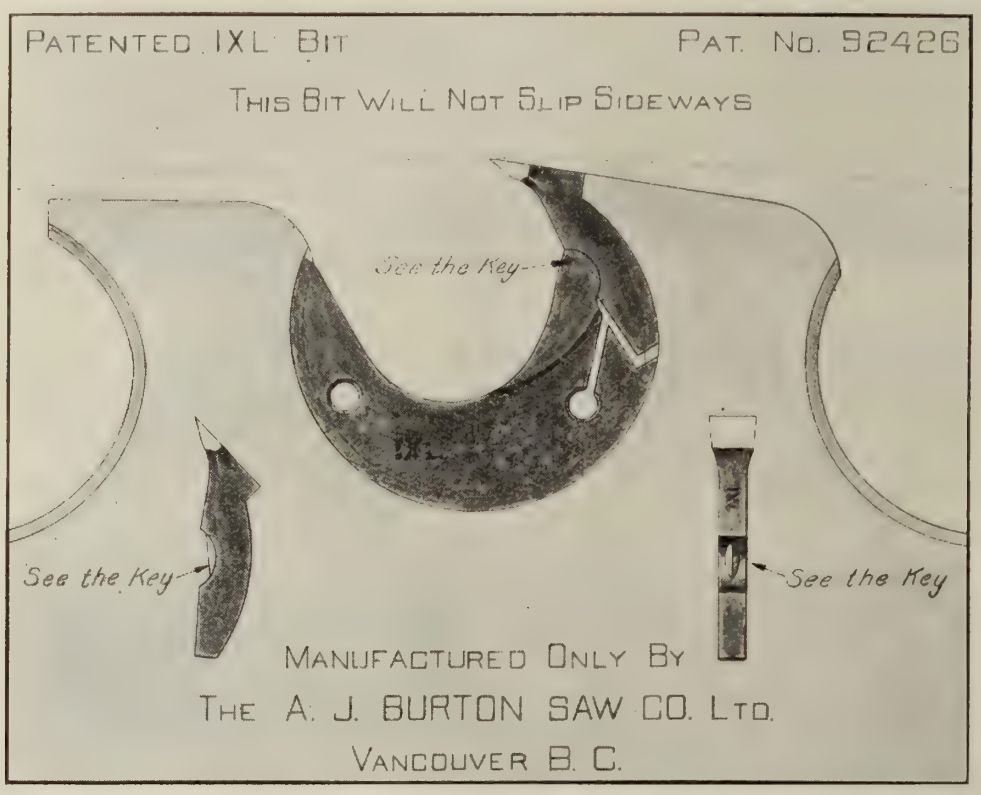
Our GROUND WOOD PULP is made from pure Spruce wood, and is of a uniformly high standard.



Our Inserted Saws are Fitted with our Patent I.X.L. Bits and Shanks, warranted not to slip sideways, and to cut free and easy, and have no equal in hardwood or any other timber.

Saws Band, Gang, Solid and Inserted Tooth Circulars, Bits and Shanks

Carried in Stock at our Ottawa Branch. Special Attention given to all Saw Repair Work.

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BOX 848
Phone 1748

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Garlock Regular Rings

For all general purposes outside of high pressure work. This Packing is a special grade thoroughly lubricated with the celebrated "Garlock" compound, and is the perfected result of over thirty years experience in manufacturing fibrous Packings.

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Made of good quality Cotton Duck and friction for cold water.

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Absolutely heat proof, will not vulcanize or blow out under any steam pressure, being made of long fibre Asbestos Brass Wire Insertion.

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Made of high grade Rubber compounded in such a way as to give it great strength and reliability.

This Packing has established wide reputation on its own merits.

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Used on cold and warm water pipes. Is unexcelled in pliability, smoothness of finish and strength of Cloth Insertion.

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Specially made to meet specific conditions—absolutely unaffected by oils.

Before placing your next order for supplies get our prices on Leather, Rubber and Canvas Belts, Hose, Brass Valves, Babbitt Metals, Saw Blades, Files, Emery Wheels, etc. Write for catalogue.

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Head Office and Factory: HAMILTON, ONT.

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THE LOGGING BOSS

He's on the job early and late. He knows what each man ought to do each day and you may depend upon it that he usually sees to it that it is done. He knows good saws.

Do *you* know that you are getting full value out of each man?

Are you sure that your saws are cutting as fast and easy and holding up without refitting as long as your competitors?

If not, don't you think it is about time to be sure of these things?

Atkins Sterling Saws

are up against the most severe tests each day in thousands of big lumber camps everywhere—and they are making good too.

"THE FINEST ON EARTH"

Atkins Sterling Perfection

Atkins Sterling Rex

SEGMENT GROUND

Why not place an order through your usual source for a few Genuine STERLING Cross-cut Saws? Specify ATKINS. See that our name is on the blade and that it is marked "STERLING." Try them out. That's the way. Then you'll know.

If you cannot get them from your usual source of supply, then write to the nearest address below. We'll see that you are taken care of promptly.

And don't overlook ATKINS Famous Band Saws, Circular Saws. A Perfect Saw for Every Purpose. Atkins Machine Knives are Famous. General Selling Agents for Covel Automatic Filing Room Machinery.

Makers of Sterling Saws

E. C. ATKINS & CO.

Makers of Sterling Saws

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SAW MILL SUPPLIES

There is not a jobber or manufacturer, or any other person employed by either, in an official position who should miss the chance of looking over our new Catalogue on Transmission Supplies.

If you are looking for "Quality and Service" in your mill supplies we know you will be impressed with the lines shown.

Send a post card for it to-day and you will have it by return mail.

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
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Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults

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The Most Profitable Investment for the Box Manufacturer

Morgan Box Making Machines

Made by The Morgan Machine Co., of Rochester, N.Y., U.S.A.

MANUFACTURERS OF

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Single and Double Groovers for Bottle Box Racks
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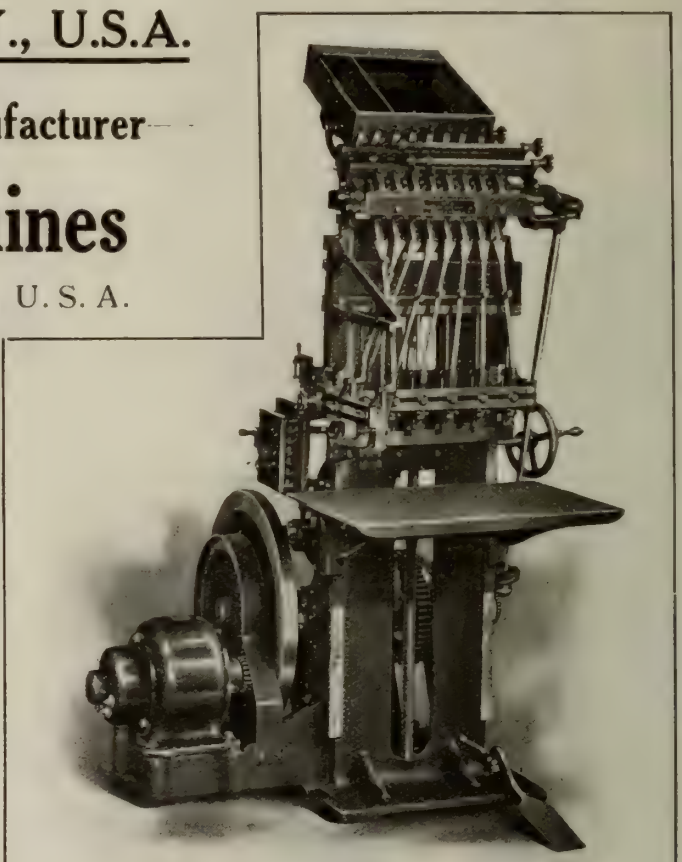
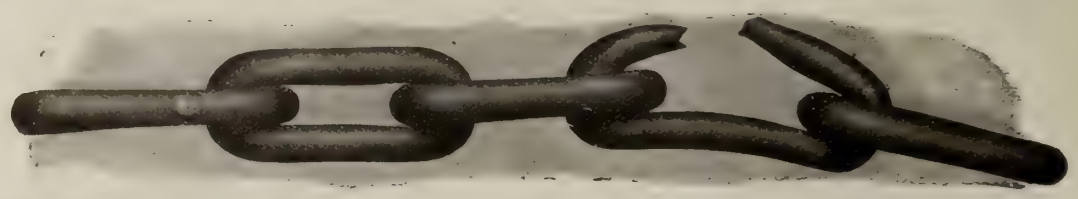


No. 8 Nailing Machine with Side Arm and Double Adjusting Head and Hopper, with motor direct connected

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"



Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

The Genuine Hoe Chisel-Tooth Saw

Special Flanged Shanks and Bits for frozen timber.

75,000 NOW IN USE IN ALL PARTS OF THE WORLD

HIGHEST QUALITY AVOID IMITATIONS

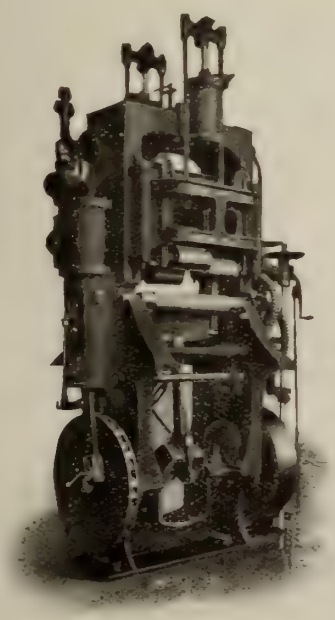
HOE HAS NO EQUAL

WRITE FOR OUR CATALOGUE

R. HOE & CO. 504-520 Grand Street, **NEW YORK CITY**

WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery"



FLAT GANGS

Unexcelled in the manufacture of— **Flooring Strips, Silo Stock** **Cedar Siding, Door Stock Boards** **Shiplap Box Lumber**

from cants and flitches, from either hard or soft woods.

ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES—taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14″ diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install economy by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

Think it Over Carefully, then Write us for Details.

"THE GANG CANNOT OVER-SLAB"

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Horizontal Tubular
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Locomotive Types
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Complete Steam Plants

Boilers built to conform with the various Provincial Inspection Acts. A well assorted stock carried on hand constantly. Let us have your enquiries.

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Sherbrooke Montreal St. Catharines Cobalt South Porcupine Nelson Vancouver

Works: SHERBROOKE, QUE., ST. CATHARINES, ONT.

Scientific Logging

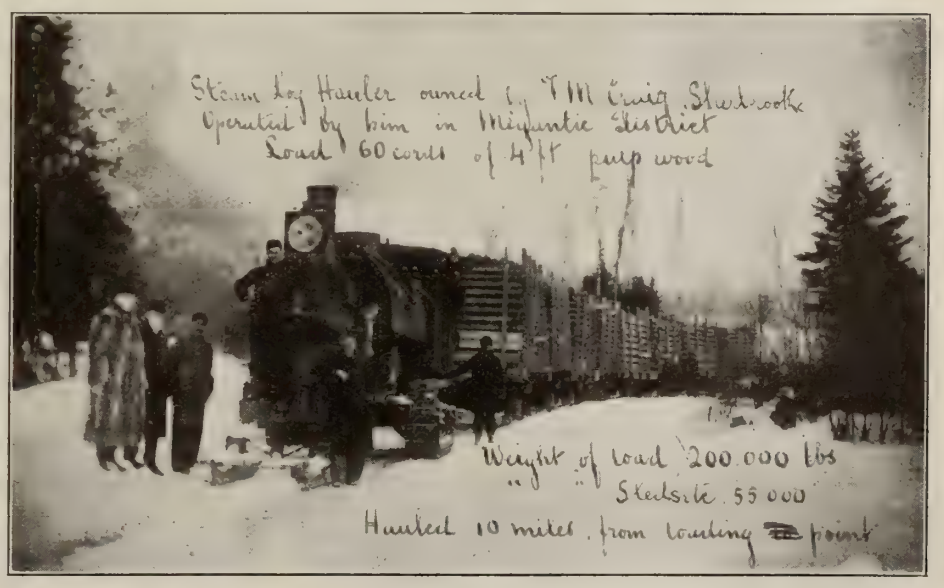
When planning your Log Hauling operations for the coming season ask for facts concerning the

Lombard Steam Log Hauler

Progressive operators are making money by using the Lombard Hauler as it increases their capacity while reducing expenses.

When comparing this method with the present practice of using horses, remember a smaller crew is required, larger loads can be handled, there is no lost time. If desired, machine can be run day and night. When not in use the expense practically ceases.

Orders should be placed early to ensure delivery in time for full seasons run


Steam log Hauler owned by T.M Craig Sherbrooke
Operated by him in Megantic District
Load 60 cords of 4 ft pulp wood
Weight of load 200.000 lbs
" " Sled 55 000
Hauled 10 miles from loading point

The Jenckes Machine Co.

Limited

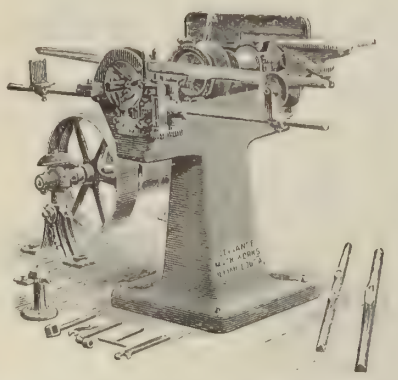
General Offices: SHERBROOKE

Works: SHERBROOKE ST. CATHARINES

Sales Offices: Sherbrooke, Montreal, St. Catharines, Cobalt, South Porcupine, Nelson and Vancouver

OUR SOLE OBJECT IN MANUFACTURING

DEFIANCE



No. 8 Shaping, Planing and Cornering Machine

WOOD-WORKING MACHINES

Is to standardize the plant of every woodworker and show him what it means to be able to secure uniform, high-grade results at low operating expenses.

We know that once you installed them in your plant you would never be without them. When we say this we voice the sentiments of our hundreds of satisfied customers.

May we not send you our catalog and Prices?

THE DEFIANCE MACHINE WORKS

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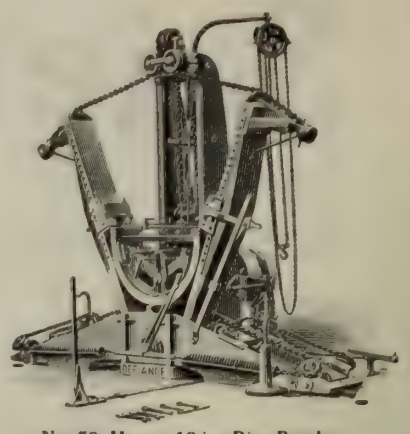
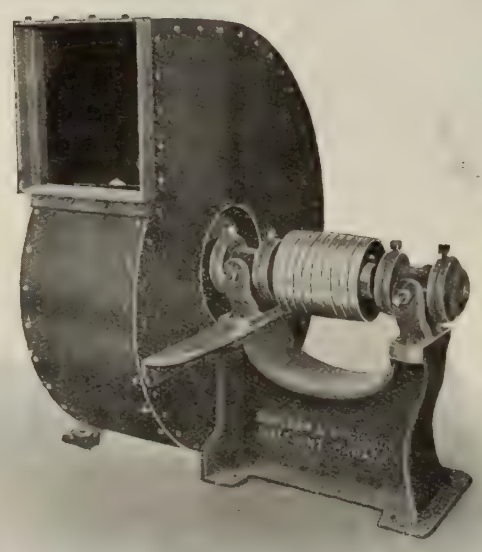
Representatives:—A. R. Williams Machinery Co., Toronto, (Ontario) St. John, N.B., (New Brunswick), Winnipeg, (Manitoba), Vancouver, (British Columbia), Reid-Newfoundland Co., St. John, (Newfoundland), Williams & Wilson, Montreal, (Quebec), W. L. Blake Co., Portland, Me., (Maine, New Hamphshire and Vermont)



No. 50, Heavy 12 in. Rim Bender

Prominent Features of Sheldon Slow Speed Shaving Exhaust Fans



Slower Speed over ordinary Fans. Saving in Power and Speed of 25% to 40%. Special Taper Inlet which prevents clogging of Wheel and minimizes wear of Fan Blades.

Sheldons Limited - Galt, Ontario

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Lumber Horses

of heavy horses in Ontario.

We are specializing this season in an extra fine line of Lumber Horses, guaranteed to be young and sound in every particular, and of extra weight and quality.

Consignments of heavy horses received regularly from the best shippers

Clean and sanitary barns under Government Inspection.

Loading chutes at Barn Doors via all railways.

We can supply your wants on the very shortest notice.

WRITE US YOUR REQUIREMENTS

Union Stock Yards of Toronto Limited

HORSE DEPARTMENT

"The Place to Buy Them Worth the Money"

Diamond Shanty Steel Range—Six Holes. Length of fire box for wood 28 in. Size of oven 24 x 27 x 15 in. Flush reservoir as cut or high reservoir. Made of extra heavy steel closely riveted. Malleable oven door frame.

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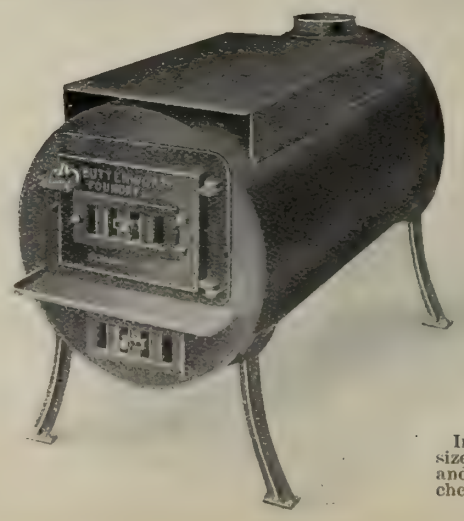
Camp Cooking and Baking with our Diamond Shanty is an absolute certainty, no guess work, meals always on time.

When you buy these goods you get our 30 years manufacturing experience.

A handsome Illustrated Catalogue is yours for the Asking



In three sizes, 36, 42, and 48 inches long.

Butterworth Foundry, Limited Ottawa, Canada.

A Belt which Conveys ALL the Power

Practical men know the drainage of power from a slipping belt, ***and because they know,*** they are buying

GOODYEAR RUBBER BELTING

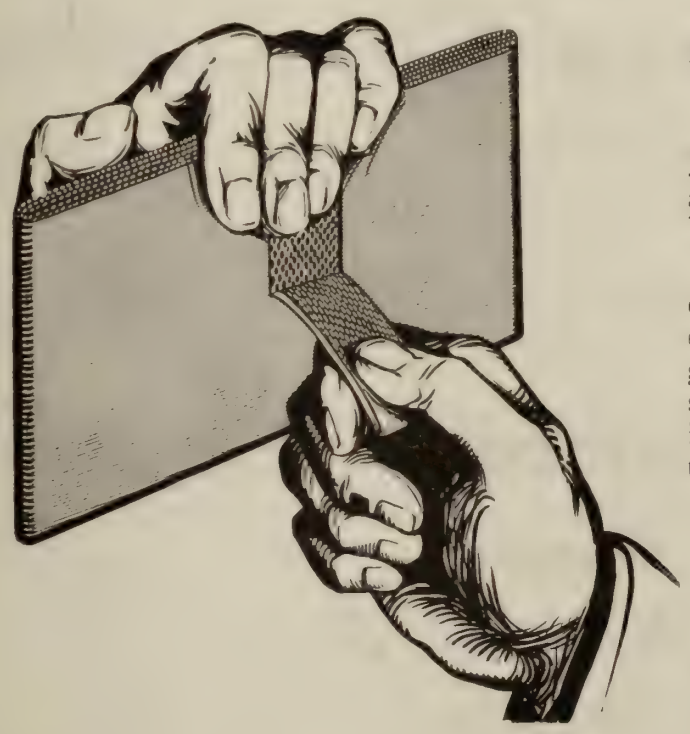
Which Neither Slips Nor Stretches

It is built up, layer upon layer, of close-woven, long-fibre, cotton fabric, rubberized and cured under Goodyear processes. And every Goodyear belt has in it the lowest possible minimum of stretch, because the belt is "cured" whilst stretched to the limit of safety in a special machine.

That is the Goodyear Method of Belt Manufacture

And the result is entirely satisfactory to belt users—a fact to which our enormously increased sales testify. What is the significance of this CONTINUED SALES INCREASE — 50% over last year? Simply that Goodyear Belting more than fulfills the claims made for it by the Goodyear people—who know what a belt should do, and make a belt to do it.

It has cost us less than $200.00 for claims or adjustment of every kind in connection with our total output for the past two years—a remarkable tribute to Goodyear reliability.



Look into the Belt for Yourself—Try to Tear It Apart.

Make a cut in the top layer—and then try to pull it apart. You will get a faint idea of its strength.

That is the result of forcing rubber at tremendous pressure through the fine cotton fabric—separating every strand—thus abolishing all internal friction or grinding. Whilst these layers of fabric are afterwards so compressed as to be almost homogeneous, the finished belt bends easily, the "duck" being so woven as to retain complete pliability in the finished belt.

For Main Drives and High Speed Pulleys GOODYEAR Belting is the Best

It has all the tensile strength necessary to absorb tremendous strain without slip, stretch or rent. The grip of rubber and the prodigious strength of hard-twist cotton fabric are united, and prove equal to every emergency.

Where the power transmitted is high, and great tensile strength is essential, Goodyear Rubber Belting proves its worth.

EVERY GOODYEAR BELT IS SUBJECTED TO A STRINGENT TEST BEFORE LEAVING THE FACTORY, and what is more, the materials used in the manufacture are also tested in the Goodyear laboratory before using.

IF YOU USE A BELT AT ALL IT WILL PAY YOU TO USE A GOODYEAR

Loss of power is loss of profit—and an inferior belt is dropping power all the time. Goodyear belting quickly earns its cost in power saved and trouble avoided.

TWO HUNDRED AND FORTY ROLLS—A TOTAL OF 72,000 FEET

We have just received an order for this quantity of GOODYEAR RUBBER BELTING from one business concern in the west, for the equipment of interior elevators. Such an order shows supreme confidence in the quality of GOODYEAR Belting.
If we have not just the belt you require we will make it for you.
In the choosing of belts our booklet would be of great assistance to you. We supply it free. Write to our nearest Branch for one.

THE GOODYEAR TIRE AND RUBBER COMPANY OF CANADA, LIMITED

FACTORY - BOWMANVILLE, Canada

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SIMONDS

Inserted Point Saw

Works Well Winter or Summer

Cuts all kinds of logs. Saws smooth, easy, and fast. Saves time, lumber and labor. This saw is not less expensive in the first place than other brands, but there is less trouble or expense in its up-keep and you will find that the experienced Sawyer makes this the particular point to consider when putting in a new saw.

Let Us Tell You More About the Saw, Quote Prices and send Catalog. Our Factory is in Montreal.

Simonds Canada Saw Co., Limited

VANCOUVER, B. C. **Montreal, Quebec** ST. JOHN, N. B.

In the United States—SIMONDS MFG. CO.

Quebec Shingles for Immediate Shipments

XXX is a Clear Shingle
XX is a 5in. Clear Shingle
X is a Sound Shingle

ONLY THREE GRADES BUT GOOD ONES

American Hardwoods, Oak Timbers, Ties and Car Material, Yellow Pine, Georgia, North Carolina Timbers and Shed Stock, Spruce, Pine, Hemlock, Lath and Shingles.

Your Inquiry Will Cost You a Penny — Our Price Will Save You Many of Them

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A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

HUGH C. MacLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President.
THOS. S. YOUNG, Toronto, General Manager.

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TERMS OF SUBSCRIPTION:

Canada, United States and Great Britain, $2.00 per year in advance; other foreign countries embraced in the General Postal Union, $3.00.
Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 32 Toronto, September 1, 1912 No. 17

The Annual Issue

In the business world one of the most important and at the same time troublesome events is the annual taking of stock. In one form or another this comes up in practically every class of business. It is the great event which brings into the light of day the results of the years' purchases and sales. It shows more clearly even than financial statements, just where money has been wasted and where it has been made, and it gives those who study its lessons, suggestions of inestimable value for their future guidance. The stock in trade of a journal, so far as its editorial work is concerned, is the good will and co-operation of its readers and friends. That is what it buys by its efforts, and the payment it makes in return is the reading matter which it presents in its columns. The annual stock taking of the commercial world resembles in a measure the annual issue of a trade journal. The present issue of the Canada Lumberman and Woodworker may be considered as representing the results of our annual editorial stock-taking. It shows us and our individual readers the amount of interest which is taken in the Canada Lumberman by the members of the great lumbering industry. At the same time it reflects the developments which have been made during the past year and those which are now in progress. In much the same manner the advertising in this issue shows the results of the interest and co-operation of those who make use of our facilities for publicity. The advertising pages tell their individual stories of important productions in all branches of the trade and they tell the great collective story of the progress which has been made in the manufacturing of many kinds of forest products and the production of wonderful machinery for the lumbering, woodworking, pulpwood and allied industries.

Bearing this general explanation of our annual issue in mind, no further definition of its aims and objects is necessary, beyond saying that it has been our effort to produce a magazine which will give our readers much to study and enjoy, and to encourage them to co-operate with us in the future, even to a greater extent than they have in the past; for, upon their co-operation depends more largely than they can appreciate, the success of our efforts to furnish them with a magazine which is thoroughly representative of lumbering and its allied industries.

For the interest which our readers and advertisers have always taken in the Canada Lumberman we have the utmost gratitude and we live and work in the hope that we may deserve this interest more and more in the future.

As to the contents of the present issue from an editorial point of view, several features, we believe, will stand out prominently. Perhaps the most noticeable of these is the fact that the pulpwood, pulp and paper industries bulk more largely than in former years. No apology is needed for this. It is the logical result of natural developments. Out of the old-established lumbering industry there has sprung up in recent years, a great new industry which promises to make Canada the largest producer of pulpwood, pulp and paper in the world. The last year has seen almost incredible strides in this direction and the coming year promises to show even greater developments. Our position as a pulpwood producing country has become established. As a pulp producing country we are now attracting the attention of the world. The progress of events has been the usual one in a new industry. First of all we produced the raw material, pulpwood. Then capital commenced to come our way for the working up of the raw material into a more finished article. Finally, we see to-day, the first stages of the complete development of our natural resources, viz., the establishing of mills for the production of paper. At first we were anxious lest our raw material should be exploited solely for the benefit of the manufacturing industry in foreign countries. The economic laws of supply and demand, however, have worked in our favor and to-day we find Canada, by reason of its pulpwood resources and its wealth of water power, coming steadily to the front as a producer of the finished article, paper. Under such conditions, those engaged in the lumbering industry have naturally taken a great interest in these new developments and in a great many cases have taken their part in bringing them about. Readers of the Canada Lumberman will therefore unquestionably be keenly interested in the articles appearing in this issue which deal with the surprising growth of the pulpwood, pulp and paper industries of Canada.

In addition to the above features the present issue contains a wide variety of articles dealing with the progress of the lumbering industry in many parts of Canada. It has been our particular effort to present in these pages, articles contributed by representative men in the industry, men who have made a special study of the particular subjects regarding which they write. Several articles of this class appear and the information which they contain can be accepted by readers as the result of long experience and careful study.

From all our readers, of every class, we bespeak a conscientious study of the advertising pages of the present issue. They will find in these pages the concrete results of the life work of scores of successful business men. The arguments, the facts and the figures presented in our advertising pages are the serious and sober expression of the convictions of men of worth. Every advertisement carries an all-important message to its own group of readers. No one who is connected with the lumbering industry or any of its allied industries can afford to lay aside this annual issue without having searched the advertising pages closely for information of special importance to their work.

Considerable discussion has recently taken place in British Columbia regarding a proposition for the establishment of a chair of logging engineering at the new British Columbia University which is to be located at Vancouver, B.C. The "Timberman" of Portland, Ore., has actively espoused the proposal and has received the assurance of the Premier of British Columbia, Sir Richard McBride, that he will have the matter fully considered. British Columbia with its wonderful timber resources would be a most fitting province to take such an important step in the direction of developing a body of trained forest and logging engineers.

Sorting and Rafting on the Restigouche

Over a Hundred Million Feet of Logs Handled During the Year—Methods Used by One of New Brunswick's Driving and Boom Co's.

The Boom Crew—During Lunch Hour

Making the Rafts—A Section Nearly Completed

LUMBERMEN in Canada are familiar with the usual methods of log driving and understand the difficulties which have to be overcome annually when the logs are transported by water from the woods to the mill. The methods of log driving, however, vary greatly according to the nature of the country, the size and extent of the timber and the nature of the water by which the drive has to be made.

In some parts of Canada it happens that a large number of lumbermen are operating in a district which is contiguous to a large system of waterways and that they find it to their advantage to co-operate for the purpose of conducting their log-driving operations. This is the case particularly in Ontario and New Brunswick. Each of these co-operative driving operations has its own peculiarities. Readers of the Canada Lumberman are already familiar with the methods used by the Spanish River Boom Company, and by the St. John River Log Driving Company. We are fortunate in being able to supplement the articles which have already appeared regarding these two companies with a description of the operations of the Restigouche Log Driving and Boom Company, whose headquarters are at Campbellton, N.B. The Restigouche is a large river emptying into the Bay of Chaleur and for some distance forming the boundary between the Province of New Brunswick and Bonaventure County, Quebec.

The Restigouche Log Driving and Boom Company take charge of the logs belonging to their members when they reach the mouth of the Kedgewick River, a branch running into the Restigouche. From that point the logs are driven to the boom limits a distance of 65 miles. The logs have to be taken at a certain date each year, about the first of June.

Generally speaking there are two chief operations in connection with the Restigouche Company's work. The first of these is the driving of the logs to the company's booms and the second is the sorting and rafting so that the logs of each individual owner can be towed away in rafts to the mills. The driving of the logs on the 65-mile stretch from the Kedgewick to the boom limits would be a fairly simple matter were it not for the tendency which the logs have to make for the shore and take a rest on the banks of the river adjoining the private property of the farmers and others whose rights upon the river banks must be respected. Moreover, it is to the advantage of the company to keep the logs continually on the move. For this purpose they have installed what are konwn as sheer booms along the shores of the river where the logs have a tendency to stick. These sheer booms extend from Matapedia down the river a distance of twelve miles, and are fastened by piers. The down-stream end hangs free, with adjustable wings which may be made to project out into the stream at any desired angle. The angle of the wing regulates the direction taken by the logs as they float down the river.

Sorting and Rafting the Logs

After the logs have been sheered into the receiving booms the rafters take hold of them. The logs are drawn up alongside of one another and riders are put on top of them. Then other logs are pulled up so as to overlap the ends of those already arranged and riders are placed on top of them, the process continuing until a sufficient number have been secured together to form a raft. The sorting of the logs before they are made into rafts takes place in much the same manner as in other booming operations. A central channel is boomed off and the logs are drawn from this channel into side pockets, each pocket containing the logs of a particular owner.

Making the Rafts—Drawing up the Logs

Making the Rafts—Ready for the Riders

The logs are identified by the sorters according to the marks which have been put on them by the loggers in the woods during the winter.

The rafting operations are carried on on both sides of the river a few miles above Campbellton. The boom on the south side of the river has been in operation for about thirty-five or forty years. The work at this point was first organized by David Richards, under whose direction it was developed into a most efficient work. The boom on the north side of the river has been in operation only since the beginning of 1911, but it has already proved very useful.

Two years ago the company was organized and secured a Dominion charter. As the river forms the boundary between the two provinces, a Dominion charter was essential. The members of the company are as follows: Richards Manufacturing Company, Campbellton, N.B.; Shives Lumber Company, Limited, Campbellton, N.B.; Dalhousie Lumber Company, Dalhousie, N.B.; Chaleur Bay Mills, Chaleur Bay, N.B.; W. H. Miller, Campbellton; B. A. Mowat, Campbellton, and the Sydney Lumber Company, Dalhousie, N.B. Each of these companies has a voice in the management of the Restigouche Log Driving and Boom Company, and they are permitted to vote by proxy through other members of the company. Each member has one vote for every hundred thousand superficial feet of logs handled for him by the company. The business affairs are managed by a board of directors chosen from the companies which are members of the boom company. Five members are appointed annually and they hold office until the next annual meeting of the company.

The Financial End of the Work

The principal object of the company from a financial point of view is to conduct the driving, sorting and rafting operations as cheaply as possible, without considering the making of dividends. The charges for the services of the company are regulated by a vote of the board of directors. At the meeting which was held on March 26th of the present year, the following rates were adopted for rafting: merchantable spruce or pine, 55 cents per thousand; undersized, 65 cents per thousand; cedar 60 cents per thousand. The charges for driving were fixed at the same meeting at 18 cents per thousand from the mouth of the Kedgewick to the boom limits and a graduated scale for other points nearer the boom limits, the charge for driving from the mouth of the Matapedia to the boom limits being four cents per thousand.

The directors for the present year are as follows: D. E. Richards, president; A. H. Hilyard, D. Champeau, W. H. Miller, W. F. Napier, and M. A. Kelly, secretary.

The operations of the company for the present year are expected to result in the driving and sorting of 108,000,000 feet. Last year the total was about 97,000,000 feet. In 1910 the total was nearly 92,000,000 feet, and in 1909, 81,000,000 feet. The estimated value of the company's plant on the south shore is $49,362, and of the plant on the north shore $63,059. During the year 1911 the expenses of operating were as follows: Driving, $14,647.71; rafting, $45,757.30; total, $60,405.01.

A week's operations result in the rafting of about 7,000,000 feet. During the week ending June 22, for instance; the average daily quantity rafted was 636,333 superficial feet, on one side of the river, making a total for the one side during the week, of 3,818,000 feet. The two sides therefore rafted about 7,000,000 feet in a week or about 12,996 logs per day.

The Employees and Their Work

About fifty-five men are employed on each side of the river on the work of sorting and rafting. They are all boarded on the company's premises in large boarding houses situated near the booms. The camp on the south side of the river includes two cook houses and two sleep houses. The hours of work are regulated by the tides, and as a rule amount to something over ten hours per day. The operations are carried on from the middle of May until about the first of November. One man is in charge of the whole operation at both booms and about five men on each side of the river occupy positions as foremen. These men are actually engaged in the sorting and rafting work, but they have supervision of the various gangs. The wages of the men vary from $1.75 to $4.00 per day, being graded according to the skill required for their work. One cook and three assistants are employed in the work of furnishing meals for the men. The employees are given an excellent variety of foods. Their work is so arduous and long that only by furnishing them with good and palatable food can they be counted upon to do their work effectively. Fresh meat, eggs, butter, bread, milk, rhubarb and seasonable fruits are secured from the farmers round about. Provisions for the men upon the north side of the river are all secured from Quebec farmers. On the south side of the river it is necessary to import a good deal of the fresh foods from other provinces.

The men who are engaed in the sorting and rafting spend practically the whole of the year in the lumber business. As soon as the work upon the river is finished they find employment in the winter camps where the logs are cut. Many of the men employed by the Restigouche Log Driving & Boom Company come from the Miramichi district, it being a difficult matter to obtain from the camps of the Restigouche district, men who are skilled in the work of sorting and rafting.

The up-keep of the booms is a matter of considerable expense. A staff of men are employed all the year round making repairs on the booms, and placing new booms and new piers.

For thirty years Mr. H. D. Sheals occupied the position of foreman and general manager at the booms. Mr. Sheals is now fifty-five years of age and he retired at the beginning of the present season. His successor, David Smith, is a man of many years' experience in the woods and on the rivers. He comes from the Miramichi district and had the benefit of being associated with the retired foreman for a number of years.

When the rafts have been formed they are towed away by the companies to whom they belong. The Restigouche Log Driving & Boom Company own a couple of tugs which they use for work around the booms. Each of the sawmilling companies also has its own tugs for the purpose of towing away the rafts. The rafts vary in size from 5,000 to 14,000 feet.

The work of the men at the booms commences early in the morning. They have breakfast at 6 o'clock and then proceed to the river. At eleven o'clock they come in for dinner. Then they go back to their work till 4 o'clock, when they come in for tea. Another period of work then takes place until 7 o'clock, when the men come in for their supper. These hours of course are varied from time to time, according to the tides.

It happens each year that a number of logs coming into the company's booms have not been marked in the woods and it is impossible therefore to tell to whom they belong. These "no mark" logs, as they are called, are sold by public auction on the first of June of each year, and the proceeds are divided among the different members of the company in proportion to the size of their cut.

The above facts give an idea of the magnitude of the work involved in sorting and rafting the Restigouche logs. Like all statistics however, they fail to give an idea of the picturesque nature of the work. The accompanying illustrations overcome this deficiency to some extent, but it is only by a personal visit to the work that one can gain anything like an adequate conception of the unique and extensive character of the operations.

New Brunswick's Surveyor General

Hon. J. K. Fleming

Hon. J. K. Fleming, Premier of New Brunswick, who is also in charge of the Crown Land Department and therefore responsible for the administration of the forest resources of the province was born in Woodstock, New Brunswick, in April 1868. He was educated in the Common schools of New Brunswick, attended the Provincial Normal School and for a short time was engaged in school teaching. After this, he found his way into mercantile life by securing a position with a firm of lumber manufacturers and dealers. In 1895 Mr. Fleming made his first entry in politics being nominated in that year to represent Carleton county in the legislature. He was also nominated in 1899, but on both occasions he was defeated. In the by-election of 1900 he was more successful, being then elected, and at subsequent elections in 1903 and 1908 he was again victorious at the polls.

In the year 1908, when the Robinson government was defeated, Mr. Fleming became Provincial Secretary in the Hazen administration, a position which he occupied until October 1911, when Mr. Hazen retired from provincial politics to become Minister of Marine and Fisheries in the Dominion Government. Upon that occasion Mr. Fleming succeeded him as Premier and Surveyor General. In the election of June last, Mr. Fleming's government was sustained and accordingly he is to-day in charge of the same department as formerly.

The Crown Land Department of New Brunswick has made an excellent financial showing during the last three years. Its revenue from Crown Lands in 1907 was $321,000. In 1911, the total was $528,000. The Department is one of the most important and busy of the executive branches of the government. It handles not only administration of the timber lands of the province but is charged also with the management of the provincial business connected with mines and mining, game protection, fisheries and fish protection.

Nova Scotia's Domestic Use of Wood

Annual Consumption Amounting to over One Hundred Million Feet—Interesting Details of Industrial Disposition of the Product

Written specially for the Canada Lumberman, by J. B. Whitman, Deputy Commissioner of Crown Lands

To give the exact quantity of native timber and lumber of all kinds used in Nova Scotia in this year of grace 1912, may look to be a very simple matter, but when we take into consideration the various industries that use timber, we are at once confronted with a task that is difficult to accomplish; so much so, that along some lines we can only hazard an extravagant guess. Reasoning, however, from figures known to be correct and from facts absolutely certain, what at first might appear to be only a guess, turns out to be approximately correct.

The entire absence of any record or note being made by the ordinary man as to whether he uses one thousand feet or two thousand feet of lumber in any one year, is the first point of difficulty and the next point is the impossibility of collecting the information. This can only be done by the census man.

The principal domestic use of native timber and lumber is for mining, building, manufactures of wood, barrels and boxes for fruit and fish, and wood for railway maintenance. In addition to this there is a large quantity used for fuel and farm fencing.

In the case of timber used for mining, most of the mines report the quantity as well as the various kinds and sizes that are used and in this way it is possible to get a close approximation of the total.

Forty Million Feet Used in Mines

The quantities contained in the report of the Department of Mines are chiefly if not wholly used in the mining of coal but the writer has been able to get reports of quantities used in many of the mining operations carried on in the province, in mines other than coal. As a very large quantity of the timber used in mining and especially in mining coal is small and is used in its round state, the measurements are given in solid or cubic feet. By following up the various sources of information, it appears that there is now used annually for mining of all kinds of mineral about six and one-quarter millions of cubic feet of small timber, mostly round. This is made up of pit props, ties and booms. A cubic foot of wood should make twelve square feet an inch thick or as it is called superficial feet or board measure, but on account of waste in sawing round timber and also on account of what goes into sawdust, a cubic foot of round timber means, according to circumstance, six or seven feet board measure. Then the quantity of small timber used in mining represents if it were sawn into lumber, something like forty millions of superficial feet.

This quantity represents approximately what can be grown under favorable conditions on forty-five thousand acres, but according to present conditions of cutting and waste, and making allowance for waste portions in any large area of land, it may mean the production of nearly one hundred thousand acres.

It has been impossible to ascertain the quantity of sawn lumber used for mining, but from accurate reports of some of the mines there is good reason for believing that the quantity is more than two million superficial feet.

These figures are open to question and may be quite far from right either way, but if in error are probably too small.

It is interesting to note that if the pit props used in mining in Nova Scotia in one year were placed end to end they would reach a distance of more than three thousand miles.

Building Operations Responsible for Heavy Consumption

To get at the total quantity used in building is absolutely impossible, except by census methods, but by securing accurate knowledge in a few isolated cases, it will perhaps be amusing, if not interesting, to reason along certain lines sufficiently to assume a total quantity. A firm of builders and contractors in a certain town of one thousand people (the census of 1911 says 1,000), used in the year a little over one million feet of native sawn lumber. There are probably fifty towns in Nova Scotia as large as the one referred to and perhaps quite as actively engaged in building. This would mean an annual consumption of fifty million feet without taking into account the building that is being done in the cities of Halifax and Sydney.

While it is true that, especially in Halifax, many of the finest edifices are being built of steel, brick, stone or cement, yet, if any one will take the trouble to notice, he will see that a very large quantity of wood and timber is used while the building is being erected. One large contracting and building firm in the city of Halifax used in one year a normal quantity represented by one million feet of sawn lumber and timber.

So far, this places the consumption at not much less than 90,000,000 superficial feet.

The wood used in manufactures for domestic purposes, while very important, does not represent a large quantity. A crew of twenty men in a lumber camp will probably use fifty axe handles in one season. Then there is the quantity used for wagons, sleighs and furniture. This is chiefly all hardwood such as ash, oak, rock maple and birch.

Eleven Million Feet In Barrels and Boxes

It is rather difficult to state the quantity used for barrels and boxes for fruit and fish, except the barrels used for apples. In the season of 1911 there were about 2,000,000 apple barrels produced, although this represents considerably more than normal. A normal production at this stage of the industry should be rather more than one million barrels, but assuming it is one million, and since an apple barrel contains about eleven feet of lumber, ordinary board measure, then for apple barrels alone we must add to the general total eleven million feet, board measure.

This brings the grand total above 100,000,000 superficial feet. The next large item of consumption of native wood is for railway ties. There are at present in the province about twelve hundred miles of railway and putting the ties at an average of 2,700 to the mile, means that there are in use at any one time 3,240,000 railway ties. Putting the average life of a tie at seven years means that each year there must be supplied for the present railway needs for ties alone, the enormous number of 463,000. The ordinary standard of specification for a railway tie is six inches by eight inches and eight feet long. If this specification is adhered to, it means that each tie contains 32 feet of lumber, board measure. Then if the annual number of ties required is 460,000, this adds to the grand total over fourteen millions.

Statistical Conclusions

The figures given above go to show that the ordinary domestic consumption of timber and lumber is certainly more than 100,000,000 and possibly is fully 125,000,000 superficial feet, for, in the above, no account has been taken of small bridges all over the country.

In addition to this there is the item of wood used for fuel, and no doubt almost every person would be surprised to see by the census the quantity of firewood that is reported as being used. This, of course, is most frequently wood that is not suitable for other purposes, but it all has to go through the same process of growth.

The figures given above as the total consumption might be cut down in a few instances, but in some others they would require just as certainly to be raised, and if the total result were changed, it would no doubt be larger.

This amount of domestic consumption, if added to the quantity that is being annually exported, will give a total not far short of 500,000,000 superficial feet, and in one sense this is something to be proud of. It is pretty generally understood that a large consumption of timber is synonymous with a high grade of civilization, and while in this sense the figures may be regarded with some degree of satisfaction, it is not a good plan to use wood so lavishly and do nothing towards cultivating it.

Spruce Taking Place of Elm for Cooperage

Although elm still leads among the woods used for slack cooperage, spruce is rapidly supplanting it. In the total output of barrels in the Dominion last year, there were used, according to figures compiled by the Forestry Branch of the Department of the Interior, 80,016,000 pieces of elm, in staves, headings and hoops, as against 37,704,000 pieces of spruce. There were, however, over 11,000,000 more spruce staves and 9,000,000 fewer elm staves reported for 1911 than for 1910. In time, elm will probably be used only for hoops, as it is the best wood for the purpose, the supply is fast diminishing, and other species can be used to advantage for staves and headings. The ultimate substitute for elm will probably be birch, which is comparatively plentiful.

Slack cooperage is of vastly greater importance than tight cooperage in Canada. This is because the majority of Canadian pro-

ducts are of a rough and dry nature, such as lime, potatoes, apples, dry fish, flour, cereals, etc., and because Canadian woods are best suited for slack cooperage.

White oak, the only wood which can be used for containing of alcoholic liquids, has been practically exhausted in Canadian woodlands. In 1911 only 2,768,000 oak staves were cut, while 7,293,000 were imported.

A rough estimate on the part of the Forestry Branch places the minimum amount of material used in the manufacture of all classes of cooperage as 62,353,190 board feet, made up as follows: staves, 29,367,714 feet heading, 24,466,666 feet, and hoops, 62,353,190 feet.

Nova Scotia's Forestry Chief

J. B. Whitman, Halifax, N. S.

Mr. J. B. Whitman, Deputy Commissioner of Crown Lands for the Province of Nova Scotia, was born in Annapolis County, Nova Scotia, and at an early age commenced to work upon a farm and also in the old-fashioned sawmill located on the farm. For this reason he became familiar with the lumbering industry from his earliest days. He followed up his experience in the sawmill with lengthy periods of work in practically every situation connected with the lumbering industry. He devoted also a great deal of his time to farming and apple growing and was exceptionally successful at this work. His heart, however, was in the lumbering business, and to it, he devoted the greater part of his attention, making a particular study of the problems connected with forestry. Mr. Whitman also took up the profession of land surveying, and in connection with this work became an expert timber cruiser. The work of land surveying took him into all parts of the Province and he became familiar with Nova Scotia's forests to a greater extent than probably any other man in Canada. His work also took him to New Brunswick and to Newfoundland.

It will be seen, therefore, that Mr. Whitman is a man of wide experience, who has had exceptional opportunities for developing those peculiar instincts with which he was endowed by nature and which are most essential for one who is put in charge of such a governmental department as that of Crown Lands. Mr. Whitman's abilities do not stop, however, with those of a land surveyor, a timber cruiser, a lumberman, a farmer or an apple grower. One would imagine that this was a sufficiently wide field of activity for any ordinary man. Mr. Whitman, however, is not an ordinary man. He is one of those exceptions which are so rare and so valuable to a government. He took a fancy at one time to the profession of civil engineering, studied it, secured the necessary experience and worked for some time at the profession. Finally, however, the call of the forest was too strong, and by degrees his interests were again centred in lumbering and forestry. He took a very active part with the Lumbermen's Association of Western Nova Scotia in urging upon the government the passage of the present Fire Law.

In 1910 Mr. Whitman was appointed Chief Provincial Surveyor for the Province of Nova Scotia ,and on December 12th, 1911, was promoted to the position of Deputy Commissioner of Crown Lands, which he holds at present.

Mr. Whitman has an abiding faith in the importance of the forests of Canada as a great natural resource. Since his appointment as Deputy Commissioner, he has spared neither time nor effort in introducing new and better methods of land surveying, by requiring more uniformity of action on the part of forest rangers, by writing numerous articles for the public press and by delivering forcible addresses at public meetings; all directed to the purpose of inducing the public to realize the importance of forestry for the preservation of this great natural resource.

Until a few years ago the timber lands of Nova Scotia were sold outright by the government, to lumber operators. About the year 1900, a strong agitation was commenced to alter this method and from that date, in most cases, timber lands were leased for twenty years with a renewal clause for twenty years more. Recently, however, the value of timber lands has increased so greatly that the government decided, two years ago, not to sell or lease the lands in future, but simply to sell the timber under a license to cut. The Lumbermen's Association of Western Nova Scotia then urged upon the government the appointment of a man who had a knowledge of the timber of the Province. When the government showed a disposition to adopt this course, Mr. Whitman was recommended by the association. The law passed in 1910 provided for the appointment of a Chief Provincial Surveyor and Mr. Whitman was placed in this position. He commenced at once to devote his attention to the timber situation of the province and with legal assistance drew up the timber regulations which are now in force.

Scant Timber Resources near James Bay

The annual report of the T. & N. O. Railway Commission contains the following reference to an exploration of the country south of James Bay, Ont.:—

The explored area on the coastal plain, for quite 90 miles south of James Bay, is decidedly not a timber country. As a producer of saw logs and of pulpwood, practically the only areas are immediately adjoining creeks and rivers.

There are several reasons why it is difficult to estimate the timbergrowth in the belt of land under consideration north of the latitude of New Post:—

(1) There has been a series of fires over quite 60 per cent. of the country, and these fires have resulted in a series of second growths. The difficulty is that these second growths are of various ages, some dating back to 10, some 20, some 50, and some 75 years. Apart from this, only remnants of the original forest remain.

(2) The edges of these several burnt areas are naturally exceedingly irregular. These areas may vary from a width of 100 feet to 1,000 feet in a very short distance.

(3) The small tributary streams along which a great deal of the available timber is to be found have never been mapped and their extent is, therefore, not known.

Hence the following conclusions have been formed:—

(1) That a large number of piles (all spruce) and sufficient for all railroad and terminal purposes can be secured more or less conveniently to the work, while there is a good deal of scattered tie timber. Its scattered character makes it difficult to say whether there would be a sufficient supply to allow 2,600 ties to the mile, but certainly a large number of ties can be had.

(2) That the country can never hope to export timber products, but can expect sufficient for local uses for some time to come.

(3) That considering the manner in which timber occurs for the most part, namely, in long narrow belts, permanent sawmills can never be used. Portable mills, situated near a line of railway are the only means of handling the small cuts available. Small sawmills operated by the Revillon Co. and by the Hudson's Bay Co., at Moose Factory, have for a number of years had no difficulty in obtaining all the logs they require—about 1,000 logs per annum per mill.

(4) The large single area of pulpwood of good quality and growth was estimated at 1,000 acres. Generally the areas seen appeared to be considerably smaller than this.

(5) There is in the burnt areas sufficient fire killed wood to supply fire wood for settlers for several years.

A Splendid Opening for a Good Trade

An advertisement of unique interest to lumbermen in Canada appears on page 12 of this issue. In itself, the advertisement is unique, as it announces that the advertiser is in the market to buy, not to sell. Pianoforte soundboards are the product that the advertiser desires. It will be seen from the advertisement that Mr. Louis Bamberger, of 2 Broad Street Buildings, Liverpool St., London, E.C., England, is in the market with a large and regular demand for pianoforte soundboards. These articles were formerly manufactured in Europe, but the enterprise of United States manufacturers resulted in their securing the business. Mr. Bamberger believes that Canadian manufacturers could secure this business and he is now on the lookout for some enterprising Canadian who would like to go into it.

There seems to be no reason why Mr. Bamberger's conviction that Canadians could produce good soundboards which would command the English trade, should not be proved correct. It is apparently only a matter of going after the business.

At the present time, if we are correctly informed, there is not a factory in Canada manufacturing pianoforte soundboards. Piano manufacturers in this country obtain their soundboards from the United States, paying 25 per cent. duty on the finished article. The United States also supply the majority used in England.

Soundboards are made from selected spruce, the greater part of which is cut in the Provinces of Quebec, Nova Scotia and New

Brunswick, and enters the United States in the shape of logs, duty free. An average soundboard is about five feet 6 inches long, 4 feet 2 inches wide, has a thickness of three-eighths of an inch, and is made up of lengths of spruce glued together and sandpapered.

It has been estimated that between 25,000 and 30,000 soundboards will be imported into Canada this year, and the English demand will probably be in the neighborhood of 125,000. Taking $3 as the average price of a soundboard, the value of English and Canadian markets combined will approximate $500,000.

Although there may be considerable waste from the spruce in short wood, there are a number of uses to which this short wood can be put. The United States manufacturers use a large quantity of it for making butter boards, egg boxes, etc., and there seems to be no reason why a box-making plant could not be run in connection with a soundboard factory.

There can be no question that Canadian piano manufacturers would prefer to purchase soundboards in their own country, and it is an admitted fact that English buyers, prices and terms being equal, are anxious to deal within the Empire. The advertisement referred to shows that one large English firm is already looking to Canada for its regular supply.

When one considers the possibilities in this business; the fact that the material is right at hand; the necessary plant being by no means expensive, the process simple, and a large and steady trade assured, it looks as though Canadian manufacturers could establish a steady and profitable business in this line.

Parrsboro, N.S.—Busy Shipping Centre

Average Annual Shipments of 35,000,000 Feet—Business with Great Britain Seriously Hampered by High Freights—Interesting Trade Details

One of the most picturesque and at the same time one of the busiest towns on the Basin of Minas, Nova Scotia, is Parrsboro, whence extensive shipments of lumber are made by vessel to the various foreign markets of Great Britain, United States, West Indies and South America. The appearance of the country is scarcely such as to give one the idea that extensive lumbering is in progress round about, but if one were to make enquiries he would find that the shipments of deals from Parrsboro roads have been at an average rate of about 35,000,000 feet per year. During the present year a great falling off in the shipments to Great Britain has occurred on account of the extensive advances which have taken place in the freight rates upon transatlantic vessels. It is expected that the shipments from Parrsboro roads for the present year will only amount to from 15,000,000 to 18,000,000 feet. Shipments of deals from the the various ports on Minas Basin amount in an average year to between 60,000,000 and 70,000,000 feet, to Great Britain and the United States. The average shipments from the Minas Basin to the United States amount to from 30,000,000 to 40,000,000 feet annually. Although the shipments from Minas Basin to Great Britain have fallen off considerably during the present year they are not expected to have increased so far as the United States are concerned, as the cut last year was rather light. In the Minas Basin district there are a number of important shipping ports in addition to Parrsboro, some of them being Hantsport, Windsor, Walton and Five Islands. Practically all the shipments from Minas Basin for Great Britain however, come to Parrsboro Roads where they are transferred by lighters to the large transatlantic vessels.

Parrsboro's Annual Shipments

A comparative idea of the shipments from Parrsboro may be obtained from the following figures for which we are indebted to Mr. Woodworth, the well known harbor master of Parrsboro.

During 1911, shipments of deals, battens, scantling and ends to England amounted to 29,662,217 superficial feet valued at $408,215. The exports of spruce and hemlock boards and scantling to the United States during 1911 totalled 3,829,514 superficial feet, valued at $48,626. 1911 was a very bad year so far as exports were concerned, the foreign markets all being very weak. The shipments during the year previous were nearly double those of 1911 and it is expected that this year's shipments will more than double those of last year.

During 1911 exports of laths to the United States amounted to 12,613,600 pieces valued at $29,322. This total was about 2,000,000 pieces greater than the total of the year 1910.

During 1911, exports of piling amounted to 62,165 pieces valued at $88,944, a considerable increase over the year 1910.

Exports of deals, battens, scantling and ends to Great Britain during 1910 amounted to 24,663,365 superficial feet, valued at $340,-344.

Shipments of spruce and hemlock boards and scantling to the United States during 1910 amounted to 6,360,201 pieces valued at $86,097.

Shipments of laths during 1910 amounted to 10,600,100 pieces valued at $23,952.

Shipments of piling during 1910 amounted to 54,948 pieces valued at $80,835.

During the year 1909, the shipments of deals, battens, etc., to Great Britain amounted to 33,796,746 ft. valued at $456,436.

During 1909 the shipments of piling amounted to 62,715 pieces valued at $96,448.

The total output for the year 1909 was 43,894,807 feet of sawn lumber. During 1910 the output was 33,083,786 feet and during 1908 the total was 32,565,956 feet. These totals do not include the piling which amounts annually to about 40,000 pieces.

Some twenty-two years ago the total shipments from Parrsboro amounted to 44,000,000 feet and all the wiseacres stated that this was just about the end of the lumbering industry in this district. They thought that the lumber was then practically all cut out. In spite of these predictions however, the shipments have varied from 32,000,000 to 43,000,000 feet every year since that time. The pessimists of those days failed to reckon with the reproductive powers of the Nova Scotia forests. An instance of this remarkable power of reproducing is afforded by the case of a timber property not far from Parrsboro which was all chopped over eighteen or twenty years ago. The owners of the property ceased operating upon

J. N. Pugsley's Mill Eatonville, N. S.

Newville Lumber Company's Mill, Newville, N. S.

it and allowed it to rest. Since that time it has fortunately escaped any damage by fire and to-day it is all ready for chopping once more and is held at a price which will effectually prevent anything in the form of speculation.

The shipments referred to in the above statistics are all made from Parrsboro but they come from various ports of Cumberland and Colchester counties. Some of them come from Moose River, eight or nine miles away. The others are from Five Islands some fifteen miles to the east. Quite a number come from Bass River in Colchester county and a few have also been coming of late from ports in Hants county across the Basin of Minas. In the other direction shipments also come to Parrsboro from Port Greville, Advocate Harbor and Eatonville.

The shipments from Parrsboro by vessel do not give a complete return of the output of the district, as large quantities of lumber are also shipped from Cumberland by rail to Pugwash and Halifax.

One of the most picturesque features of the lumber trade in the early days was the number of large square-rigged vessels which came to anchor in Parrsboro Roads to take on cargoes for foreign markets. Twenty-two years ago, as many as twenty-one square rigged vessels were seen in Parrsboro Roads at one time. The shipments to-day are carried to England in steamers, each of which take away many times the quantity that used to be shipped by the sailing vessels. Sailing vessels are still employed in the trade with the United States but these are not the stately square-rigged vessels of the early days. The shipments to the United States are practically all made in two or three mastered schooners.

An off-shoot of the lumber industry at Parrsboro has lately developed in the form of a mill for the production of apple barrels. Dr. Edward Jeffers of the Jeffers Milling Co. has started an apple barrel mill which has now been running for about three months. The indications are that this industry will be quite a success. If this is the case, the firm will export barrel shooks to the Annapolis Valley. The firm expect to get out about 10,000 barrels this year. Practically all of this output will be consumed at Parrsboro for the shipment of potatoes to the West Indies and Cuba. The trade in potatoes with the West Indies, Cuba and South America is steadily growing and the shipments are all made in barrels.

The ship building industry in the neighborhood of Parrsboro was at one time quite extensive. As many as 12 vessels have been building at one time, most of them being schooners and barges of from 100 to 700 tons. The decline in freight rates however, consequent upon the extension of the steamship industry quickly caused a decline in the ship-building industry at this point.

Piling—An Important Side Line

One of the most interesting branches of the lumbering ludustry in this part of Nova Scotia is the taking out of trees which are to be used for piling purposes. Mr. J. Newton Pugsley of Parrsboro has been one of the most extensive operators in this line for some years. He has taken out during the present year about 20,000 spruce trees for this purpose, all of which are sold in the United States at about $1.50 a tree. These are used for piling in foundations of large buildings, wharves, etc. For this purpose, only trees which are growing fairly close to the sea shore are suitable. As the trees are taken out whole they could not be floated down any of the rivers. The operation therefore consists of cutting the trees, drawing them to the shore, surveying, sorting and doing a little finishing. It costs just about as much to do this work as to saw the trees into lumber. The trees are brought out of the woods on sleds in much the same manner as logs. The piles will net an operator about $17 per M. superficial feet, whereas sawn lumber works out at about $13.50 at the mill. Last year there was shipped out from the north shore of the Bay of Fundy and from Cumberland Bay about 95,000 trees to be used for piling. In some years the shipments have been as heavy as 175,000 trees.

In their finished form, ready for the market these trees are 10½ in. at the butt for the smallest ones and they vary up to 16 in. and sometimes as high as 18 in. A tree 10 in. at the butt will sometimes be used if it is about 37 ft. long. A 10½ in. tree at the butt will be 6 in. at the top. One of the most favored sizes is 12½ in. at the butt. This class must be 35 ft. in length at least and it runs up to 44 ft. All trees in this class are known as No. 1 and will bring about 7c. per lineal ft. in New York and Boston. The next class in 12½ in. (No. 2) runs from 44 ft. to 48 ft. in length including the 45, 46 and 47 ft. lengths. These will bring from 7½ to 8c. per lineal ft. The next class (No. 3) 12½ in. runs from 48 ft. to 55 ft. and sells at from 8½ to 8¾c. in New York and Boston, the 4th class running from 55 ft. up will bring from 9 to 9½c. per lineal ft. The 14 in. butts are classed as 40 ft. and up in length and usually sell at about 9c. per lineal ft.

The market for piling has been rather weak ever since 1907, previous to that year the sales were much more frequent and the surveys were more favorable to the seller. Since the decline in the market the surveys have been very unfavorable to the seller. The great majority of piling is spruce though some buyers will take from 5 to 10 per cent. of fir when the market is in good condition. It is expected that during the present year shipments will fall to about 35,000 to 40,000 trees, but it is also believed that the present dull trade is only a temporary condition on account of the small quantity of work in progress on harbor improvements, etc., upon which a great deal of the piling is used. With the present increase in building operations both in United States and Canada the market for piling should pick up in the very near future. An idea of the quantity of trees which will be consumed for piling in the construction of a large building may be obtained from the fact that on one job in Boston a few years ago, no less than 75,000 trees were used. This was in connection with the extension of the yards of some of the large railway companies.

Quite a number of spars and piece sticks are also shipped annually from Parrsboro. The piece sticks are scaled according to the following system:

The first size, 40 ft. long is 10 in. in diameter 1/3 of the way from the butt and 5 in. at the top. These are used for small booms, top masts, etc. The quantity of these demanded by the trade is comparatively small.

The second class, 44 ft. long is 11 in. in diameter 1/3 of the way from the butt and 6 in. at the top.

The third class is 48 ft. long, is 12 in. 1/3 of the way from the butt and 7 in. at the top.

The same ratio is continued as the piece increases in size, 1 in. being added to the diameter for every 4 ft. in the length. Piece sticks are secured as long as 70 ft.

Shipments of spars are comparatively rare. They run from 3 in. to 10 in. at the butt, most of them are shipped to Baltimore and a few go to Bridgeport, Connecticut.

One of the reasons for the present quietness in the market for piling is the fact that Southern pine stock has been used extensively in New York for the same purpose.

Camp on Jones Brook—Newville Lumber Co.

Spruce Saw Logs—Newville Lumber Co.

Piles of the average length of 44 ft. and 12½ in. at the butt bring about 75c. to 80c. per tree on board the vessel, or about 4½c. a foot.

Parrsboro's Leading Lumbermen

Among the lumber men who have been prominently identified with the town of Parrsboro for a number of years Mr. J. Newton Pugsley occupies an important position. His business is both as a manufacturer and a wholesaler. He conducts mills at Avon River in Hants County and at Eatonville in Cumberland County. Mr. Pugsley's shipments include some 16,000,000 to 18,000,000 ft. annually to English markets and from 7,000,000 to 8,000,000 ft. to markets in the United States. Mr. Pugsley's two mills are rotaries each having a capacity of about 30,000 ft. per day. His limits on the Avon River amount to about 22,000 acres and those on the Eatonville River total about 18,000 acres, taking in Cape Chignecto. During the present year Mr. Pugsley expects to ship to English markets only about 10,000,000 ft. on account of the excessive freight rates charged by transatlantic vessels. Freights during the present summer from Parrsboro reached as high as 55s. per standard to the English markets, whereas last year they varied from 32s. 6d. to 35s. Reference to Mr. Pugsley's shipments of piling has already been made in a previous paragraph of this article.

Mr. J. W. Kirkpatrick is another prominent Parrsboro lumberman, operating a mill at Lakeland near Parrsboro which has a capacity of 20,000 ft. per day, turning out about 2,000,000 ft. per annum. This product is largely spruce and is sold both in the United States and Great Britain. Most of the spruce during the present year has been going to the United States on account of the heavy freight rates to Great Britain. The mill also cuts a considerable quantity of hardwood most of which is sold in England and a portion of it in the Maritime Provinces. One of Mr. Kirkpatrick's customers in the Maritime Provinces is the firm of Rhodes Curry & Co., Amherst, N.S., who purchase a large quantity of 1½ in., 2 in., 2½ in. and 3 in. clear birch for flooring and general finishing purposes. The Canada Car Company, another of Mr. Kirkpatrick's customers, buys about 300,000 ft. of birch car framing in 4 in. x 4¼ in., 4¾ in. x 5 in., 5½ in. x 5¾ in. and 8 and 9 ft. lengths. The same firm also purchase such stocks as 2¼ in. x 10 in., 2¼ in. x 11 in., 4 in. x 11 in., and 1¾ in. live sawn birch. The Lakeland mill is equipped with a rotary, edger, slab saw and trimmer.

Mr. Kirkpatrick also operates a mill at Five Islands, Colchester County, about 15 miles east of Parrsboro, located on the Bass River. This mill cuts about 25,000,000 ft. per year, the daily capacity being from 25,000 to 30,000 ft. The product is all spruce and birch, the greater part being spruce. The output is all sold in the English and United States markets. The equipment is similar to that in the Lakeland mill with the addition of a lath machine and planer.

During the present year Mr. Kirkpatrick expects to ship about 4,500,000 ft. During an ordinary season about three-quarters of his output is sold in England.

Mr. Kirkpatrick recently purchased the Eatonville mill formerly belonging to Mr. J. Newton Pugsley, of Parrsboro. The price was in the neighborhood of $100,000. The purchase also includes about 25,000 acres of spruce and birch, the greater part being spruce. The entire property is covered with a good growth of timber.

The Moose River Lumber Company of Parrsboro operates a mill some 7 miles east of the town. The members of the company are B. L. Tucker and Hugh Tucker, the former occupying the position of manager. Their mill cuts about 3,000,000 ft. per year and about 30,000 ft. per day. It is equipped with one rotary saw, edger, trimmer and lath machine, the latter having a cut of 22,000 to 23,000 lath per day. During the present season the Moose River Lumber Company will only cut about 1,000,000 ft.

Burpee L. Tucker of Parrsboro will ship about 5,000,000 ft. to England during the present year and 5,000,000 ft. to the United States. Last year his shipments on his own account amounted to about 2,000,000 ft. from Halifax and 11,000,000 from Parrsboro to the English market and about 5,000,000 ft. to the United States. Most of the lumber which Mr. Burpee L. Tucker handles is spruce although he also ships a small quantity of hardwood. Last year his hardwood shipments amounted to 3,000,000 ft. He also handles a small quantity of hemlock. Mr. Tucker operates a portable rotary mill at Stillwater with a capacity of about 1,500,000 ft. per year, cutting spruce, hemlock and hardwoods.

The Newville Lumber Company of Parrsboro the members of which are Capt. J. Spicer and P. L. Spicer, operates a mill at Newville, about 10 miles north of Parrsboro, which is equipped with a single rotary saw, edger, trimmers, planer and lath machines. Its average cut in one year is 3,000,000 ft., the daily cut being about 30,000 ft. in addition to 25,000 lath. This company's limits are located about 6 miles from the mill on the Halfway River. They dispose of about two-thirds of their cut in the English markets and the balance goes to the United States. Last winter the Newville Lumber Company bought a new property consisting of about 6,000 acres, together with a rotary mill. The lands belonged to the late H. W. McKenna. This property has not yet been operated by its new owners. The company are very fortunately situated in connection with securing their logs as they have only to be driven about 6 miles on the Halfway River until they reach the Halfway River Lake which is used by the company for a log pond. This lake is about ½ mile wide by 1 mile long.

The Newville Lumber Company pay particular attention to getting both a good quality of lumber and as much as possible from their equipment. They consider, in fact, that they have a record cut for an ordinary friction gear carriage. During a single day a few years ago they turned out 64,000 ft. of lumber. The company operates 2 camps during the winter, employing 50 men in all. They employ about 30 men around the mill and also have a farm in the neighborhood of the mill from which they secure much of their requirements for the camps. The farm is about 125 acres in extent and has an excellent crop of hay, oats, and roots.

Newville Mill Destroyed by Fire

Since the above article was written we have learned with much regret that the mill of the Newville Lumber Company at Newville, Nova Scotia, a picture of which appears among the illustrations of this article, has been destroyed by fire. The fire occurred on August 23rd at about 9 o'clock at night, and the mill was totally destroyed with all its contents. About 150,000 feet of lumber and 1,000,000 lath were burned in the yard. The flames also destroyed a carload of lumber, the company's railway siding, a blacksmith's shop containing two wagons, and a lot of tools. The loss is estimated at $20,000, partly covered by insurance. In the mill-pond, the company have 1,000,000 feet of logs, which will be sawed by portable mills. It is understood that the mill will not be replaced during the present year.

Ontario Leases the Abitibi Limit

Messrs. Shirley Ogilvie and F. H. Anson, of Montreal, the Successful Tenders — A Bonus of $105,000

Messrs. Shirley Ogilvie and F. H. Anson, of Montreal, are the successful tenderers for the Abitibi pulp limit offered by the Ontario Government. The amount of the bonus to be paid to the government is $5,000 per year, distributed over a period of twenty-one years, making $105,000. This represents the right to cut pulpwood and timber on the limit and entitles the successful tenderer to obtain a lease, upon the usual terms, of Iroquois and Couchiching Falls for power purpurposes. By the terms of the lease, ten per cent. of the bonus must accompany the tender.

Spruce pulp wood cut on the limit will be subject to the usual tax of forty cents a cord. For timber cut $1 per 1,000 feet board measure will be due the Department. No sum is stipulated for the rental of the power at Iroquois and Couchiching Falls, as this part of the contract will have to be adjusted by the Hydro-electric Power Commission under the legislation of last session.

An additional undertaking, not required by the government, which Messrs. Ogilvie and Anson have inserted in their offer, is that during and after 1913 they will advance for the purpose of being expended or shall expend $50,000 in preparing buildings and land for settlers in the neighborhood of Iroquois Falls. None of the land on the limit goes with the lease, so the conditions under which this money is to be expended will be decided by the Minister or Lands, Forests and Mines, although a lien will be retained on all property sold until the purchasers repay the amount on each farm in easy installments.

The tenderers also agree to buy wood and agricultural products from the settlers and to promote as far as in their power the development and settlement of the district.

A joint stock company with a capital of $1,500,000 is to be organized to carry out the enterprise.

An integral part of the scheme is the construction of a pulp mill costing, with equipment and machinery, not less than $500,000, with a daily output of one hundred tons of pulp and the employment of 259 miles on an average for ten months in the year. This investment is distributed as follows: $100,000 during the first year; $200,000 during the second year; and the balance during the third year. Cutting may commence on the limit so soon as $100,000 is expended on the mill.

The successful tenderer is also under agreement to erect a paper mill on the order of the Lieutenant-Governor in Council, which shall have a capacity of one hundred tons of paper per day and shall turn out not less than seventy-five tons of paper per day.

Spruce, balsam, jack pine, poplar, white wood trees, etc., can be cut by the successful tenderers.

The same parties previously tendered for the Abitibi limit when it was offered on a former occasion. At that time, however, the terms offered did not satisfy the government, the amount offered not being considered sufficient and no agreement was made.

Forestry Methods in Province of Quebec

Careful Oversight of Lumbering Operations By Officers of Forest Service—Timber Owners Cooperating With Government—The Work of the Forestry School

G. C. Piche, Quebec, P.Q.

THE Forest Branch of the Department of Lands & Forests of the Province of Quebec has of late years made great progress in the work of surveying the forest lands of the province and in protecting its timber resources. With so large a country to cover and such extensive timber resources, the work of the Department is necessarily of the most difficult nature and requires the expenditure of a large amount of money, together with the efforts of the most efficient staff that can be brought together. The policy of the department of Lands and Forests has been to employ in the work of the Forest Branch, only men who have shown themselves thoroughly versed in matters of forestry. In the first place they inaugurated this policy by securing as the head of the Branch, Mr. G. C. Piche, a man who has made forestry his life work and who has that fortunate combination of business ability and tact which are essential in one who is to take charge of the forestry work of such a large province as Quebec. Mr. Piche's work is often of a nature requiring the utmost tact and knowledge of human nature, as it constitutes him a go-between whenever the interests of the Department and those of the lumbermen, or the interests of the lumbermen and the settlers, appear to be at variance. That he has been successful in gaining the co-operation both of the settlers and the lumbermen is attested in many quarters and speaks volumes for his fitness for the position which he occupies. One hears occasional criticism of the department in connection with individual details of its work, yet on the whole Mr. Piche has been able to secure the co-operation of the lumbermen and has brought them to feel that the interests of the province and their own interests are in many cases identical. The natural result has been that the regulations which he is called upon to enforce and the recommendations which it is his duty to make to the lumbermen as to the management of their operations are received with goodwill on practically all sides, and that the province and the lumbermen are already finding that their mutual interests are being rapidly advanced by Mr. Piche's work.

The Forest School at Laval

Following out the same policy which led to the appointment of Mr. Piche as head of the Forest Branch, the Government of Quebec, on Mr. Piche's recommendation, has established a Forestry School in connection with Laval University, the students of which, both as undergraduates and graduates, are employed in the forest service. In this manner there is being built up a service which has already shown splendid results and which, in the years to come, cannot fail to play a most important part in the preservation and development of the timber resources of the province. The Forest School has this year commenced to see the fruition of its work, as the first graduation of students took place on June 18th, when seven students obtained their diplomas. These men are now being employed by the government in field work. The forest branch is using them in connection with ten parties which are being sent out on the work of exploring and classifying the land and timber in various parts of the province, extending all the way from Abitibi to Gaspe.

Front of Sand Dune Creeping over the Land

A large percentage of work done by the Forest Branch consists of preventing bogus settlers from deunding the timber lands of the province. An indication of the extent of this work is afforded by the fact that, during the past four years $200,000 has been collected from bogus settlers in the form of fines. This is as large a sum as had been collected in the fifteen years preceding.

An important work of the Forest branch is in connection of superintending the lumbering operations throughout the province. They pay particular attention to prevention of waste and the lumbermen in the majority of cases are working in harmony with the government. The Forest Service requires lumbermen to furnish lists of their operations, each year, before the first of December. The statement also shows the name of the foreman of the camp and the name of the scalers, together with the quantity of timber which it is intended to cut and the location of the cutting. The government uses this statement in deciding upon the location of its forest rangers. Each forest ranger has to make one visit to the camp and report upon the progress of the cutting each time that he visits the camp. The forest ranger is expected to visit each camp once a month. It has been found that one man can visit from fifteen to thirty camps during a month, according to their location. Upon receiving these reports from its rangers the Forest Service writes to the lumber operators, either congratulating them upon their work, or asking them to make

Plantation made at Oka, Que., in 1887

Forest and Soil Destroyed by Fire

alterations which are considered necessary. These letters and recommendations have been received by the lumbermen in the spirit in which they are sent, and have been the cause of a number of important improvements being made in lumbering operations.

Each foreman in the lumber shanty is required by the Forest Service to keep a shanty book, in which he records daily, the number of logs cut and other information regarding the different operations. This book is also checked up by the forest ranger. The government scaler makes his report in the same book, this report is also checked up by the forest ranger. At the end of the season the foreman makes

A Quebec Lumber Camp

his declaration in the book as to the amount of timber cut and the scaler makes a similar declaration. A margin of five per cent. is allowed for variations in the estimate of the two different parties. If the variation is greater than five per cent. the Forest Service looks into the matter more closely.

The work of the forest rangers is checked by forest agents. Each forest agent is in charge of from three to ten rangers, and is supposed to visit each of them and to see that their work and other reports are properly attended to. In addition to the above, the department employ a staff of expert scalers whose work takes them from one end of the province to the other. Last year the Service had in its employ ten inspectors, nine expert scalers, fifteen forest agents, fifteen students, and fifty-four forest rangers.

An important part of the Forest Service is now connected with the township forest reserves, which were recently established. There are seven of these, aggregating 120,000 acres. The object of these reserves is to furnish timber to the farmers upon payment of stumpage dues.

Checking up the Lumbermen's Reports

Lumbermen are required to furnish their detailed reports of their operations to the Forest Service before the 30th of June each year. These reports cover all their operations on timber limits and upon

Forest Students Leaving for Camp

all other lands. The reports are sent in to the timber agent, whose duty it is to prepare the account for stumpage, etc. The agent's account is then submitted to the Forest Service for revision. It is in this manner checked up according to the reports of the Forest Service. The Service has thus been able to put a stop to the stories that used to prevail, regarding alleged arrangements between timber owners and the agents of the Forest Branch. The Forest Service now believes that the amount which it looses through incorrect reports is practically negligible. In some sections of the country the government gets more stumpage even than it is entitled to. In such cases it makes a point of advising the lumbermen to that effect.

The students of the Forest School are employed by lumbermen during their holidays as scalers and also for doing general work in the woods. In addition to the work as outlined above the Forest Service carries on an educational campaign among the farmers and lumbermen. Lectures are delivered frequently to farmers and others.

The work of reforestation is also attended to by the Forest Service and the students of the Forest School. A nursery is conducted at Berthierville, where 1,000,000 young trees are raised annually. Berthierville is a place of considerable historic interest to the lumber industry of Quebec. In 1712, about 500 cubic feet of red oak was cut there and rafted to Quebec, to build the first wooden ship constructed in Canada.

Mr. Piche and His Work

Mr. G. C. Piche, the chief of the Forest Service of Quebec Province, was born on December 2nd, 1880, in Montreal, where he was educated in the primary school and at St. Louis College, from which he graduated in 1897. It was then his intention to take up the profession of civil engineering. Lack of funds, however, obliged him to go into business at once. His first position was secured with the C. P. R. in the passenger department, where he remained until the end of 1900. In the latter year he secured a position with the Belgo-Canadian Pulp Company at Shawinigan Falls, Quebec. Mr. Piche was connected with this company until 1903, and during this period he had a very wide experience, including all kinds of work in the woods and at the mill. In 1903 he left the Belgo-Canadian Company to enter the Ecole Polytechnique and take up the study of civil engineering. During his course at the Polytechnique School Mr. Piche took great interest in studying the forestry methods in use in France and this led him to urge upon Sir Lomer Gouin, Premier of Quebec, the wisdom of adopting similar steps in connection with the forests of the Province of Quebec. Sir Lomer Gouin consulted Monsignor Laflamme, who was then known as the Apostle of forestry in Canada and who occupied the chair of Natural Sciences at Laval University. Monsignor Laflamme approved of the suggestion and Mr. Piche, together with Mr. Avila Bedard, were sent to Yale Forestry School in 1905, graduating in 1907. Since his graduation Mr. Piche has been continuously associated with the Department of Lands and Forests of the Province of Quebec. In 1908, upon the death of Mr. Langelier, who had been Superintendent of Forest Rangers for the Province, Mr. Piche was put in charge of the whole Forest Service.

In 1909 Mr. Piche and Mr. Bedard were authorized by the government to take in a number of student assistants. This step was adopted as a preparation for the establishment of a Forestry School at Quebec. In the year 1910, when the school was founded, ten students were available who had in this manner gone through their preparatory work and in the present year the Forestry School graduated its first class. The school is affiliated with Laval University and the government gives it an annual subsidy of $5,000. Candidates who wish to enter the school must be twenty years of age, must be able to speak French and English correctly and must pass the entrance examination. This examination takes the form of a contest, as there are ten scholarships to be granted. There is no restriction put on the number who can attend and pay fees at the school. During the three years' course the fees amount to $200. The course at the forestry school lays particular stress upon mathematics, the aim being to equip graduates as far as possible for engineering work. There is also a course in construction of sawmills, pulp mills, etc. A number of other courses are included, one, for instance, being a course in medicine, particular attention being paid to first care in cases of accident.

It will be readily realized from the above outline of the work of the Forest Branch, that Mr. Piche's hands are pretty full and that he has a great field in which to show his worth. The work of the Branch has been largely of an organizing nature in the past, but definite benefits have resulted from the first. Other provinces are watching the work closely and its success is likely to result in similar work in the other provinces. There is no question about the urgency of the demand for work of this nature and it is greatly to be hoped that Quebec's example will prove contagious.

Fred. Dayton, of Edmunston, ...B., recently visited Fredericton to make inquiries as to the amount of logs owned by the St. John Lumber Co., of Van Buren, Maine, which came down to the booms here this season. Already about two million feet of this lumber have been rafted, and it is expected that the season's total will be about three million feet. This lumber was in the ice in the main river during last winter and came down with ice in the spring before the booms at Van Buren were in position. The spruce among the American lumber will be sawed at Warner's mills at St. John, while the cedar will be manufactured by John A. Morrison at the Phoenix mills, this city.

The Pulp and Pulpwood Trade of Quebec

Factors Which Have Brought About the Recent Important Developments in This Great Industry — Quebec's Strong Position in The World's Trade

(Specially Written for the Canada Lumberman)

All indications point to an increasing request for pulpwood, ground wood and chemical pulp, with advancing prices. From various causes, principally that of a small labor supply, there is not sufficient wood to meet the demand, and as the consumption of paper naturally tends to expand, quotations are more likely to rise than to fall. Domestic requirements will certainly improve, as Canadians are putting more and more capital into paper mills, with the result that there will be a dimunition in the amount available for export. News print paper is in splendid demand, and prices are firm. Manufacturers and purchasers foresee their requirements sometime in advance, and although large sales are frequently reported, they have been expected and therefore have very little effect on price conditions when they occur. A well-known authority, speaking on the subject to a representative of the Canada Lumberman, declared that Canadians are able to dispose of their news print as fast as they can produce it, and at good prices.

Reduced Shipments and Their Meaning

The average monthly shipment of ground wood pulp from Canada to the United States during 1911 amounted to 22,000 tons. The shipments for the month of February, 1912, amounted to only 6,000 tons, those for March were 9,000, those for April were 11,000, and those for May 16,000. This is accounted for by the fact that pulp mills in the United States have had a very plentiful supply of water during the present year. Last year they were very short of water power, and their stocks of logs accumlated enormously, so that this year they have had both heavy stocks of logs and lots of power for turning them into pulp. The result is, that they have not needed to buy so much wood pulp from the Canadian mills. Canadian mills, however, have been exceptionally busy turning out pulp, and there is a splendid demand for practically everything they can produce. There has been a very scarce supply of ground wood pulp in Europe during the past winter. They now have plenty of water in Europe and have been experimenting similar conditions to those of the United States. Probably the largest dealer in pulp in the world recently purchased 500,000 tons of ground wood at present mill prices, to be delivered during the next ten years, at the rate of 50,000 tons a year. This dealer certainly is clearly a believer in prices holding up, as he would not make such an extensive contract covering so many years to come if he were not confident that prices are lower than they will be at any time during the next ten years.

Strong Markets for Ground Wood

Ground wood to-day is selling at $18 at the mill at the very lowest. No one will accept less than this. The stocks from Norway are not cutting any figure in the United States at present, as they are able in Norway and upon the European continent to take up practically everything that is produced in that country. Newfoundland is selling ground wood at about $16.00 to $17.00, and the manufacturers moreover, are able to reach New York on a somewhat lower freight rate on account of the all-water haul.

The demand for chemical pulp is better than it has been at any time for the past six years, and prices are up anywhere from $3 to $5 per ton, as compared with eight months ago. The advance seems to be the result of world wide conditions in connection with the industry.

There is a difference of opinion among paper and pulp manufacturers as to the effect of the policy of the Gouin Government in prohibiting the export of pulp wood from Crown lands. Probably the difference is to some extent explained by the way the policy affects people; but there would appear to be a majority in favor of the continuance of the policy, on the ground that it tends to compel the manufacture of pulp on this side of the border. It is objected that the act is very easily evaded, and that Crown lands can be quickly converted into private lands by the simple expedient of settlers receiving grants, and selling the wood to various manufacturers. This is no doubt done to some extent, but probably not to the degree that some who oppose the prohibition state. It is certain that there will be wood from private lands for sale for many years to come, and we are informed of one firm which has been offered 150,000 cords per year of privately owned pulp wood for a period of 20 years. The price of pulp wood cut from privately owned lands has advanced about $1.50 a cord during the past six months. It is about $8 to $8.50 for peeled wood on the cars at the point of shipment.

Naturally, the political situation in the United States, is of great interest to those identified with the paper and pulp industries, as the result of the election may affect the tariff on those articles. It may be pointed out however, that no material changes could be made in the tariff for a year, because the elections will take place in November. Congress will meet in March, and would not adjourn until the middle of the summer. No contentious bill could be carried until the middle of next summer, and it is quite possible that any bill for removing tariffs would be delayed until the end of the session, and perhaps carried over into the next session. It is generally thought that the Democrats would like to put into effect a world wide tariff giving free entry for pulp and paper in the United States. If this were done Canada would then simply be on an equal footing with all other countries, and our paper or pulp, whether taken from Crown lands or private lands, would have to compete with that from other countries. We would probably be able to meet this competition successfully and to do a large business under such conditions.

An Important Manufacturing Experiment

An interesting experiment is about to be tried at New York in the way of the manufacturing of paper at a tide-water mill. The idea is that sulphite pulp and mechanical pulp can be imported to this mill, and there manufactured into paper. A large saving is expected, because there would be no rail freight rates upon the raw material or manufactured paper, or outlay for forest lands or for the extensive machinery necessary for the manufacture of pulp. Sulphite pulp would be brought from such countries as Norway, and chemical from Canada, and the two combined at Brooklyn, where this experimental mill has been erected. If it is successful, other mills are proposed at Cleveland and Chicago.

A Half Century in the Timber Trade

Mr. Edward Harper Wade, Quebec

Edward Harper Wade, Quebec

One of the most genial, widely known and at the same time successful lumber exporters in the city of Quebec is Mr. Edward Harper Wade, manager of the Harper Wade Export Co. The accompanying portrait will be recognized by his friends as an excellent likeness of Mr. Wade. The Harper Wade Export Co. was formed and commenced its business career in 1910, devoting its attention to the shipment of wood goods. Mr. Wade had previously occupied the position of manager for the McArthur Export Co. Ltd. from the date of its foundation, and previous to that, had been manager of the export business of the McArthur Bros. Co. Ltd. for a number of years. These companies completed their business careers and Mr. Wade then inaugurated the business of the present Harper Wade Export Co.

Mr. Wade was born in Liverpool in 1846, being a descendant, on both sides, of Liverpool business people. Samuel Mosley Wade, his father, and Samuel Wade, his grandfather, were for long years engaged as brokers in the cotton trade of Lancashire. His mother was a daughter of Richard Harper of Law Hill, Liverpool.

Mr. Wade's connection with the Canadian timber trade dates from the year 1862 when he entered the Liverpool office of Messrs. Sharples, Jones & Co., who then carried on a large wholesale importing business in Quebec timber, in connection with their Canadian house. Mr. Wade's father had been lost at sea and the son was apprenticed by his guardian to the firm of Sharples, Jones & Co. in the good old-fashioned style, binding the apprentice to five years' service, in consideration of being taught the trade of a timber merchant. This

engagement was faithfully carried out on both sides and every opportunity was given for the acquisition of such knowledge of all the timber mysteries as the Canada Dock Quay or the town office of the firm afforded. The lessons of straight-forward and truthful dealing and literal fulfilment of all business obligations and promises were duly incalculated and those who know Mr. Edward Harper Wade, however slightly, know better than anything else, how firmly he has clung to these principles of business life throughout all the intervening years.

When his term of apprenticeship had expired, Mr. Wade remained with the firm for three years, after which he was transferred to the Quebec office of C. & J. Sharples & Co. Shortly after this, the Quebec firm became known as John Sharples, Sons & Co., and the Liverpool house was styled, Henry Sharples, Sons & Co. All the senior partners of this firm had passed away before Mr. Wade left its employ in the year 1877. For several years previous to this date, Mr. Wade has travelled on contract business for the firm in all parts of the United Kingdom, particularly in Ireland and North Wales, districts at that time importing large quantities of Quebec goods. Such responsible work scarcely ever fell into the hands of so young a man at that time, but the high standard and careful shipments of the firm served Mr. Wade well, and enabled him to advance and extend the connection of his house into the districts which were especially left to his care.

At the end of the year 1877, Mr. Wade entered into business arrangements with the old and well-known Quebec firm of Roberts, Smith & Co., continuing with them as a salesman for three years and enjoying a percentage of the profits of the business. When Mr. Joseph Roberts retired in 1880, Mr. Wade was admitted into partnership by Mr. R. H. Smith, and the firm name became Smith, Wade & Co. Mr. R. H. Smith retired at the end of 1886 and Mr. Wade continued the business under the old name, until he took charge of the McArthur export business, as mentioned above. In the month of May of the present year, Mr. Wade completed a half century in the timber trade.

Pulpwood Situation in Quebec Province

A Minute Consideration of the Statistics from the Point of View of Those Who Disapprove of the Prohibition of Export

Contributed specially to the Canada Lumberman

The statement so frequently made by the public press of Quebec Province, that the law enacted in 1910, prohibiting the exports of pulpwood cut on Crown Lands after May 1st, 1910, has already proved of great benefit, by materially reducing these wood exports, and by compelling United States pulp and paper mills to come to Quebec, because they have been cut off from their former wood supply from Quebec, does not seem to be substantiated by facts and figures.

A superficial examination of the wood, pulp and paper exports from the Province of Quebec during the last few years may have led to a conclusion in harmony with the purposes of the restrictive policy, but a careful analysis will prove that the restriction has not materially restricted, hence has not seriously diminished the wood supply of United States wood importers. Nor, has it had the effect of compelling United States pulp and paper mills to abandon their plants and to locate in Canada. On the other hand, it is perfectly apparent that pulp wood limit owners, subject to the restrictive law, when unable to establish pulp or paper mills of their own, have suffered a serious loss, through the diminution of the value of their holdings, because unable to make use of them. More than this, a direct loss has resulted to Canadian exporters of pulp, because compelled to pay a duty on all of their pulp, manufactured from wood cut on Crown lands, which would have been avoided but for the restriction placed on the exports of wood from the same lands.

A statement of wood exports for the years from 1900 to 1912 and for the six months periods of the years from 1909 to 1912 will best show the correctness of these conclusions; moreover, will give an excellent idea of the growth of the wood exports from this district. A statement of the number of cords exported cannot be given, but statements of values will afford as reliable a means for comparison as cords, inasmuch as there has not been a material advance in the value of wood since 1909.

The following tables are prepared from reliable sources, those of pulp and paper exports being added as of considerable interest in this connection:

Exports of wood and wood products to the United States from Quebec Consular District for the years from 1900-1912.

	Pulp Wood, Value	Wood Pulp, Value	Paper, Value
1900	$ 22,294	$ 19,992	.....
1901	28,908	1,113	$ 2,203
1902	90,302	.....	3,437
1903	246,536	48,218	.....
1904	302,440	121,515	1,250
1905	281,819	29,704	640
1906	239,726	22,951	1,354
1907	385,941	209,538	299
1908	636,181	230,362	45,200
1909	1,180,029	264,558	98,029
1910	1,702,642	765,133	173,561
1911	1,290,500	1,273,868	211,616

Six months' periods for the years 1909-1910-1911-1912:

	Pulp Wood, Value	Wood Pulp, Value	Paper, Value
1909	$230,757	$105,135	$ 41,243
1910	580,596	107,167	51,616
1911	318,067	350,969	106,781
1912	456,089	571,733	125,255

It will be seen from the above tables that the exports of pulp wood from the Quebec district in 1911 decreased in value by about $400,000 from 1910, when these exports amounted to $1,702,000. This, however, was to be expected, as United States importers were anxious to stock up prior to the enforcement of the restrictive law after May, 1910. This is clearly shown by the fact that such importations for the six months from January to July rose from $230,757, in 1909 to $580,596 in 1910.

The fear, however, of an impending shortage of pulp wood was apparently groundless, as is best shown by the figures of these exports for the first six months of 1912, which show a value of $456,089, an increase of $138,000 over the same period of 1911, and of over $225,000 over the corresponding period in 1909.

Judging by this, it may safely be assumed that pulp wood exports from the Province of Quebec, despite the law prohibiting their exportation when cut on Crown lands, will not suffer a serious diminution this year, and probably not for years to come, as the private forest lands of the Province, augmented from year to year by settlers' lands, free from restrictions after five years of settlement, are able to furnish on a conservative estimate from 800,000 to a million cords of wood annually.

It might have been assumed, however, that the great increase during the last few years in the exports of wood pulp from Quebec would naturally have caused a decreased demand for pulp wood, but apparently it has not, both kinds of exports having increased side by side, those of pulp at a wonderful rate of late years.

The growth of pulp exports must, of course, be most gratifying to home manufacturers, for an increase in the value of this product from only $29,000 in 1905 to $1,273,868 for 1911, bears eloquent testimony to the growth and prosperity of this branch of industry. That this is likely to continue, and that pulp exports will soon outstrip all others from the Province of Quebec, is shown best again by the figures for the first six months of the present year, which give a value of $571,733, as against $107,167 for 1910, and $350,969 for 1911.

All things considered, therefore, and in the light of actual figures, that do not lie, and which are not influenced by ulterior motives and considerations, the conclusion seems entirely justified, that the restriction placed on the exports of pulp wood by this and other provinces of Canada has not materially reduced the volume of such exports, nor is it likely to do so in the near future; on the other hand, that a removal of the present duty on the exports of paper and pulp, when manufactured from wood cut on the Crown lands, subject to export restriction, would prove of the greatest benefit to the pulp and paper industry of this and other Provinces of Canada, for the greater facilities afforded these industries, the greater their freedom from onerous restrictions and burdens, the greater will be their power of production at a minimum of cost, hence their power to offer their products in the markets of the world, in competition with all other producers.

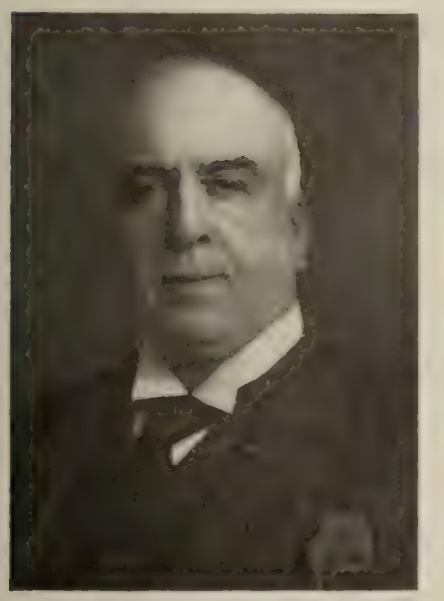
In other words, give the Canadian manufacturer the chance to produce his pulp and paper at a cost less than that in other countries, which can be done, with practically unlimited natural resources at his command in the shape of raw material and water power, and it would soon become unprofitable for manufacturers elsewhere to import raw material from Canada, which, when manufactured into pulp and paper would make these articles cost more than if imported from Quebec or other producing Provinces of Canada.

Prominent Montreal Lumber Exporters

Mr. Eustache Lemay, of Montreal, claims distinction as the largest individual lumber merchant in Canada. His activities are widespread, for in addition to doing an extensive wholesale Canadian trade, he is a large exporter to Great Britain and to the United States, and also ships to South America and South Africa. Last year he occupied the position of seventh on the list of exporters to the United Kingdom, shipping some 7,200,000 feet, while he is the leading Montreal exporter to the United States.

Mr. Lemay is of French and Scottish parentage, and was born some 64 years ago in the Quebec Village of St. Martins. He received a business training with E. B. Eddy, of Hull, and eventually was appointed manager of that firm's Montreal branch. Then, about 27 years ago, he decided to go into business for himself, and that he has made a success is testified by his extensive dealings. At first his capital was small but gradually he was able to widen the limits of his trade. He is known as a hard worker, and a very shrewd buyer. Mr. Lemay was the pioneer in bringing to the east Idaho white pine on a large scale, and to-day controls the entire output of Idaho white pine cut at Elk River by the Potlach Lumber Company, amounting to forty million feet per annum. In addition, he has the entire output of white pine of McLachlin Bros. Company, of Arnprior, Ont. The control of the output of several spruce mills in the Province of Quebec is also in his hands.

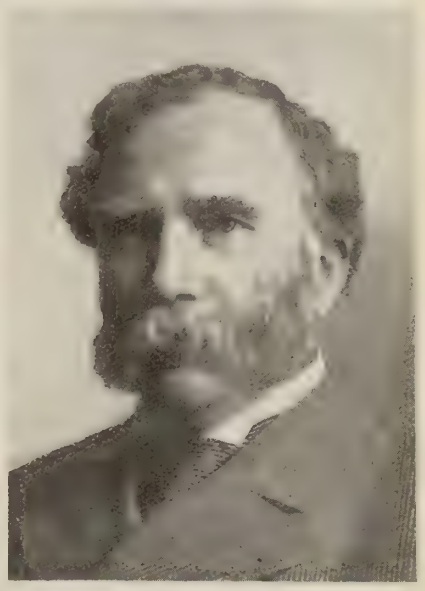
For twelve years Mr. Lemay was on the Board of the Montreal Harbor Commissioners, and to-day is a director of the Banque de Hochelaga and the Montreal "Herald."



E. Lemay

E. L. Todd

Arthur H. Campbell



G. A. Grier

Edgar Lawton Todd

Mr. Edgar Lawton Todd, the Montreal manager of Watson & Todd, Ltd., is in the true sense of the word a practical lumberman—he knows the business "from the stump." He is one of the many Englishmen who, putting aside their early prejudices, have made good in this country. Born in Yarm, Yorkshire, he came to Canada in 1891, at the age of 18, and having been connected with the lumber business on the other side, decided to learn the practical side here. This he has done, at the cost of considerable personal discomfort, for in those days camp life was not exactly a bed of roses. It has its discomforts now, but the life is tolerable as compared with the days when Mr. Todd entered the employment of the Canada Lumber Company, of Carleton Place. But he stuck to the business, even although he was early disillusioned as to its environments. He was for some time trail maker for the log cutters, and then steadily advanced until he obtained a position in the sawmill, eventually becoming timekeeper and then salesman.

In 1895 Mr. Todd represented Messrs. Watson & Todd, of Liverpool, in which his uncle is a partner, in Newfoundland; and later was promoted to the charge of the Montreal office, on the retirement of the late Mr. Martin Power, who went into business on his own account. The firm of Watson & Todd was turned into a limited liability company in 1909, when Mr. E. R. Bremner, of Ottawa, became a partner.

Mr. Todd is, in the season, one of the busiest men in the lumber trade, as his firm is the largest exporter in Canada of lumber to the British Isles. Early and late he is either in the office or superintending the shipment of lumber to the other side. He is by nature an optimist, a characteristic which has stood him in good stead in many a difficult situation.

Arthur H. Campbell

Mr. Arthur H. Campbell is the managing director of the Campbell-MacLaurin Company, Limited, Montreal, which does a large exporting business in spruce with New York City and State and the New England States. Two of the directors, Mr. DeWitt C. Culver, vice-president, and Mr. George L. Ryon (of the Skillings, Whitneys & Barnes Lumber Company) are lumbermen in the United States, and the company have also a New York representative in the person of Mr. Maurice H. Gatchel. Mr. Campbell is a native of Toronto, having been born there in 1874. He was educated at Upper Canada College and at the University of Toronto, where he was prominently identified with sports, being captain of the Varsity baseball team and a half back in the rugby team, which won the championship of Canada in 1895. On leaving the University, Mr. Campbell went into the lumber business, joining the staff of W. C. Edwards & Company at Rockland, Ont. Later he became salesman for the Robinson-Edwards Company, and afterwards manager in New York for that concern. During the ten years he resided in New York he naturally obtained a thorough knowledge of the export side of the business which has proved of great value to the Campbell-MacLaurin Company, which he organized when he left New York and went to Montreal. Most of the company's export trade is done with New York City and State.

G. A. Grier

Mr. G. A. Grier, founder of the firm of G. A. Grier & Son, Limited, is the oldest lumberman in Montreal, and a man of many activities. He was born in Cumberland, Ont., in 1849, educated at Ottawa College, and commenced his business career with Lyman & Sons, whole druggists, Montreal. But lumber proved more attractive than drugs, for after a year or two, Mr. Grier started, in 1870, in the business in which he has made such a success. He still remained in Montreal, and while doing a wholesale trade there and having a yard (which the firm still maintains), he branched out into the export business with the United States, doing a very large turnover.

In 1885 he secured a large white pine limit, with mills, in the Ottawa Valley; after running the mills for three or four years, he sold out. Mr. Grier also operated plants at Sorel and New Richmond, P.Q., and sold the latter plant and limits to Edwards & McLean. During the last ten years he has confined his attention, so far as lumber is concerned, to his wholesale business in Montreal. In this he was assisted by his sons, Mr. G. W. Grier, taking a very active share in the conduct of affairs. The firm still figures in the list of exporters to the United States. Besides being interested in real estate, Mr. G. A. Grier is president of the Diamond Glass Company, president of the St. Lawrence Flour Mill Company, and a director of the Dominion Textile Company.

Logs Ready for the Saw—J. B. Snowball Company, Limited, Chatham N.B.

Raw Material and Finished Product

Typical Lumbering Scenes at J. B. Snowball Plant, Chatham, N. B.

Lumber Ready for Shipment—J. B. Snowball Company, Limited, Chatham, N.B.

Pioneer Lumbering Firm of Chatham, N.B.

J. B. Snowball Co. Limited

One of the best known lumber manufacturing companies in the province of New Brunswick is that of the J. B. Snowball Co., Ltd., of Chatham. The industry was established by J. B. Snowball in 1872 when he constructed a mill at Chatham. In addition to occupying a prominent position as one of the chief lumber manufacturers of the province, the late Mr. J. B. Snowball took a great interest in public affairs. He was at one time member of Parliament for the County of Northumberland and also occupied at successive periods the positions of Senator for the Dominion and Lieutenant-Governor of the Province of New Brunswick.

The J. B. Snowball Company prospered from its inception and on December 13, 1899, it was incorporated as the J. B. Snowball Company, Limited, under which name it has continued ever since. The late Mr. J. B. Snowball occupied the position of President of the company and Mr. W. B. Snowball was its secretary-treasurer. Upon the death of the former president, Mr. W. B. Snowball became president and his brother, Mr. R. A. Snowball, secretary-treasurer. The company handles annually about 30,000,000 ft. of lumber, most of which is shipped to British markets in the form of deals, boards, and scantlings. The output of shingles and lath is practically all shipped to markets in the United States. Of late years a market has opened in Montreal and other Quebec and Eastern Ontario points for pine and spruce boards, as well as for low grade stock to be used in box making. This is all shipped to Montreal by rail.

The principal mill of the J. B. Snowball Company, Limited, is located in the town of Chatham and is one of the most efficiently equipped to be found in the Maritime Provinces. The equipment includes an 8-ft. single cutting band mill, manufactured by Clark Bros. Co., Belmont, New York; 7-ft. band resaw, twin rotary, manufactured by William Hamilton Co., Ltd., Peterboro, Ont.; a large gang saw which is used when there is a heavy rush of business, 2 circular resaws for taking bolts out of slabs, a 2 saw trimmer, edgers, a 5 saw bolter manufactured by the Diamond Iron Works, Minneapolis, Minn., and 2 lath machines of 60,000 and 40,000 daily capacity.

A box manufacturing plant is also conducted in connection with this mill, the equipment being as follows: one Perkins automatic splitter, one Fisher heading machine, one Berlin equalizer, one Berlin jointer and a cutting-up saw. This plant is equipped to manufacture all kinds of rough shooks for the fishing industry.

The mill and box plant are run by steam power, the equipment including an inclined double engine capable of producing about 450 h.p., a horizontal double engine capable of about 250 h.p., a battery of 6 boilers 18 ft. long and 72 in. in diameter, dutch ovens and a refuse kiln at the end of the dutch ovens. A covered burner is installed with a brick chimney 400 ft. from the mill.

Conveyors Carry Stock to Yards

One of the most interesting features in connection with this will is the conveyor system by means of which lumber is carried to the yards. Lumber is taken from the mill by conveyor running the full length of the yard. The conveyor makes a right angle turn and carries part of the stock across the street where it is also piled. All of the lumber is piled according to widths. After it has passed the turn in the conveyor it is selected by hand and dropped to the different piles. Portable runs are used for conveying the lumber from the piles to the vessels.

The J. B. Snowball Company, Limited, also operates a mill about a mile up the river from Chatham. The equipment consists of 2 boilers 5 ft. in diameter and 16 ft. long, a Leonard engine of about 200 h.p. capacity, rotary saw, edger, trimmers, slasher saws, 2 shingle machines, a Berlin planer, and a lath machine. The output of this plant is about 30,000 ft. of lumber, 15,000 lath and 26,000 shingles per day.

A third mill operated by the J. B. Snowball Co., Ltd., is known as the Derby mill. This is still further up the river and has practically the same equipment as the mill previously described.

At Tracadie, about 45 miles down the river, the J. B. Snowball Company, Limited, operate a mill equipped with a live gang saw, with capacity of about 50,000 ft. per day. A rotary of the same capacity, edger, trimmer, wood cutters, 3 shingle machines with total capacity of about 42,000 per day, a Goldie McCulloch planer, etc. The power plant consists of a double inclined engine with capacity

Where the Lumber is made—Twin Rotary and Gang, J. B. Snowball Co. Ltd., Chatham, N. B.

View of Yard and Mill—J. B. Snowball Co. Ltd., Chatham, N. B.

Vessel at Dock—J. B. Snowball Co., Ltd., Chatham, N. B.

of about 400 h.p., dutch ovens, and three boilers. In all of the mills the boilers are of the tubular type.

Unique Manufacturing Conditions

A number of interesting features in connection with the operations of the mill at Chatham have been introduced by Mr. Snowball. One of these, which is a most important factor in the economical running of the mill, is the installation of a hand resaw which is used for removing the bad side of any log and thus saving all the merchantable quality.

Another feature is the fact that in running the edgers two men are stationed on one side of the machines as it is important that the edger-men should be given ample time to inspect and take the most out of the lumber which passes through their hands. A similar practice has been adopted in connection with the trimming. Two men are stationed where the manufactured lumber passes through the first saw, to handle it and trim it to the best advantage. On the surveyor's side 4 men are stationed to mark the length and breadth and class of the lumber and indicate the point at which it is to be trimmed.

Extensive Timber Resources

Another feature of great importance in connection with this mill is the fact that the timber limits are so located that logs can be conveniently brought to the mill at all times. Part of the timber comes from the north and south west branches of the Miramichi and a large portion comes from the Tabusintac on the north side of the Miramichi, and from the Bay Du Vin on the south side. The timber limits controlled by the company cover some 412,160 acres all of which is well wooded, produces an excellent class of logs and is held under lease. The greater part of the timber is spruce with a small amount of pine, hemlock, cedar and hardwood. The woods operations are especially favored inasmuch as the limits are surrounded by good farming districts from which capable labor can always be secured. The products of the farms moreover are bought at reasonable prices for camp supplies, thus saving heavy expenditure in transportation. The limits are capable of producing 30,000,000 ft. per annum upon their natural growth.

All the mills of the J. B. Snowball Company, Limited, have railroad sidings by means of which shipping can be done direct from the mills by rail.

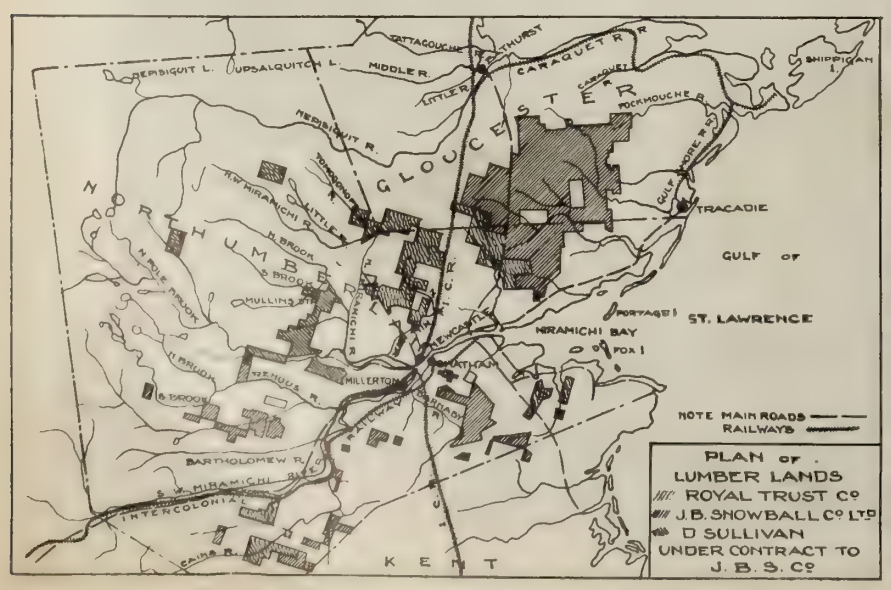
The company employ at their various mills about 505 men.

The shipping facilities by water at each of the mills are excellent. At the Chatham mill for instance 55 ft. of water is available at the wharf, so that the largest vessels can load alongside without any difficulty whatever.

It will be realized from the above description that the company have an excellent series of plants for the production of lumber and that their manufacturing methods are worked out upon the most modern lines. The accompanying illustrations give a good idea of the extent of the plant at Chatham and of its excellent shipping facilities and booming grounds.

Reports from Ottawa state that a material increase has been made by United States railroads in their lumber rates on shipments to Ontario and Quebec points, and also to a number of points in Western Canada. The increases vary from 1c to 5c per hundred pounds and the ratings have been filed with the United States Interstate Commerce Commission. The Canadian Lumbermen's Association are giving the matter their serious attention. It is probable that, upon their recommendation, the question will be taken up by the Dominion Board of Railway Commissioners. Considerable difficulty is experienced in dealing with a case of this nature which involves a through rate, because the authority of the railway commission applies only to Canadian railways. Recurring cases of this nature have suggested the advisability of forming a joint international commission to regulate through rates. Negotiations looking towards this end have been held between representatives of Canada and the United States. Unfortunately, they have been, so far, without results. It is expected that the proposal will be brought up again this Fall.

A pulp mill with a capacity of 400 pounds a day, is expected to be erected in Renfrew shortly by M. J. O'Brien.



Map of Timber Limits—J. B. Snowball Co., Ltd., Chatham, N B.

Upper Mill - J. B. Snowball Co. Ltd., Chatham, N. B.

Montreal as a Lumber Shipping Port

Distributing Canada's Output of Wood Goods to Many Foreign Markets—Its Extensive Shipments to Great Britain—The Influence of Foreign Competition

(Specially written for the Canadian Lumberman)

From its position as Canada's greatest commercial port, Montreal naturally does the largest export lumber business with Great Britain. Of late years, owing to various causes, the tendency has been towards smaller shipments, those of 1911 showing a falling off of 12,882,176 feet, with a total of 103,473,220 feet. There are three main reasons for this continued decline in exports—the impossibility of getting the higher grades, a stronger domestic demand, and competition of Baltic goods.

The firms doing the largest trade—Watson & Todd, Limited (who have been for several years at the head of the list) and Robert Cox & Company—have their head offices in Liverpool, while Cox, Long & Company have their head office in London. W. & J. Sharples, J. Burstall & Company, and Dobell, Beckett & Company, are all city of Quebec firms with offices in Montreal; T. Mackarell & Company have their head office in Ottawa; while Mr. E. H. Lemay and Mr. E. N. Nicholson are big shippers with their own offices in the city. With the exception of the firms mentioned with British offices the Montreal exporters ship their goods to the other side to wood brokers who sell on a commission basis.

A Wide Variety of Shipments

White and red pine and birch comprise the great bulk of the cargoes sent to Great Britain. At one time a good deal of spruce was exported to Great Britain, but this trade has declined and is now done chiefly from Quebec and St. John, N.B. In the last few years Canadian woods have been subjected to strong competition, particularly our red pine. The rise of the Russian trade has meant decreased shipments from Montreal, as Baltic red pine is sold at a price which makes it very difficult for Canadian descriptions to compete. The freight is cheaper, lumber more abundant, and labor poorly paid—three factors of vital importance. In special lines Canadian red pine holds its own, while our white pine practically has the market to itself, as it cannot be touched by other woods. The falling off in general shipments has been largely confined to British Channel ports.

In birch, boards, planks, and logs are exported to the United Kingdom and a little to South Africa. So far this year there has been a good supply, and prices have stiffened; our lumber has to meet competition from European countries, but as Quebec birch is, as a rule, of superior quality, there is every probability of quotations being sustained. As a matter of fact, Quebec birch commands higher prices than other descriptions, including those which come from the Lower Provinces. The chances are all in favor of higher values in the future, as the lumber will cost more to produce, owing to all the standing timber within easy access of the railways having been cut. This involves going further back for supplies, which naturally adds to the expense. While planks and boards have gone up in price in recent years, birch logs have not appreciated to extent. The principal reason for this is that logs will not keep in Canada, and that when, as sometimes happens, more logs are got out than are wanted, they have to be thrown on to the market, with the result that prices are not sustained.

Difficulties Confronting the Trade

Apart from outside competition, Montreal shippers have difficulties of a local nature to contend with. To begin with, some general merchants on the harbor front are woefully behind in their warehousing accommodation, which makes for delay in the shipping of goods, and thus to a certain extent handicaps lumber dealers and others who are anxious to get prompt shipment. Then, too, lumbermen complain that they are not given sufficient facilities for unloading cars at the harbor. When a car of lumber is consigned to an exporter, it is shunted on to an outside siding at the harbor, involving time and cost for the goods to be unloaded and carried either inside the shed or on to the wharf. It is contended that the cars should be run alongside the sheds, and then unloaded right into the sheds, instead of the lumber having to be carried across the harbor front. Through consignments are allowed to be unloaded at the sheds.

Up to this year, the big shippers were discriminated against in the matter of steamship rates. With the object of encouraging small consignments from the West, the steamship companies gave a rate per 100 lb. which was denied the large exporters, who had to pay the rate per standard. This resulted in small amounts of lumber being carried at a lower rate than the large consignments; naturally protests were made, and this year the 100-lb. rate has been abolished and the rate per standard substituted for all lumber.

So far this year trade has been good, with indications of exports keeping up to the level of 1911. In the early part of the season there was a good deal of difficulty, on account of the lighter troubles in England, and also on account of the great advance which has been made in ocean freight rates. This matter of ocean freight rates has been a most detrimental factor in connection with the Old Country lumber trade. Freights to-day are some 10s. higher than they were a year ago, shippers being obliged to pay 40s. a standard, whereas a year ago they had to pay only 30s. It is clear that this charge has to be added to the cost of the goods, and that it is a serious item, having regard to the keen competition of Russian lumber with certain of our products. It increases the disadvantages under which we are fighting this competition; and although the consumer will have to pay in the end, the additional cost of the goods tends to lessen the consumption.

The trouble with the lighter men entirely crippled the transport business to London for a time. The C. P. R., which, during normal periods, has a vessel a week from Montreal for London, was unable during the second week of June to offer a vessel out of Montreal for London until the end of the first week in July. At that time many vessels were reported at London lying idle with their loads of lumber on board. These vessels being withdrawn from trade for the time being, stopped the shipments for the port of London. Liverpool, fortunately, was not so seriously affected by the lightermen's strike, and shipments continued to that port at a steady rate. The car shortage was also a disturbing factor, as it was impossible to get goods for some time, while the wet weather in May retarded shipments for a short period.

An interesting feature in connection with the export trade from Montreal is the business which is being done by some exporters with European ports. Vessels from Montreal, for instance, frequently leave, which are to call at London and Antwerp; this makes it possible for Montreal shippers to look for business in Antwerp. One firm of exporters in Montreal is now selling to Antwerp about 1,000,000 feet a year of the highest grades of lumber, having been able to work up a very good demand for Canadian lumber.

Export Trade to the United States

Although no figures are available showing the total amount of the export trade in lumber from Montreal to the United States, inquiries show that it is of very considerable importance. Apart from the lumber re-shipped from the city, there is a large trade—in fact the far greater proportion—which is done through various wholesalers, the orders being executed at the mills and sent direct to various points outside the country.

This year trade with the United States has shown a welcome revival. The market is in a very healthy condition, with prices very firm. The principal exporters report that the demand this year is abnormal, and that it has not been confined to any particular descriptions of lumber. Following the panic in 1907, business dropped off, and continued to decline, with smaller prices, until this year. One effect of the poor state of business over the border was the importation here, at low prices, of Southern lumber, the home market being unable to take care of its products. Since January, however, a more cheerful feeling has pervaded markets, and there has been a growing demand for Canadian lumber in the United States. Quotations for spruce have advanced, while white pine, Norway pine and hemlock have been on a firmer basis. Although the increased inquiries have exercised a certain influence on the upward range of values, the chief cause is the closing down, during the lean period following the crisis of 1907, of a number of Southern mills, which were unable to operate at a profit at the prices which obtained. Another cause contributing to the advance was the severe cold weather during the past winter, which interferred with the Southern mills operating, thus reducing the output. Further than that, the high water and floods during the spring caused a lot of trouble to Southern manufacturers. This reduced their cut materially, the result being that quotations of Southern wood advanced from two to five dollars per thousand feet as compared with last year. Canadian exports to the United States comprise chiefly, spruce, white pine, lath, and cedar shingles. Greater New York is naturally the largest market, the lumber being shipped during the season by canal boats. These are towed down the St. Lawrence to Sorel, and from there up the Richelieu River to Chambly, where they strike the Chambly Canal. They are then towed by horses, and go through Lake Champlain to the Northern Canal, on to the Hudson River, and so to New York, the journey taking from 18 to 21 days.

Sawmill of Davison Lumber Company, Bridgewater, N.S.

Sawmilling and Pulp Making

Davison Lumber Company, Bridgewater, N.S.

Rossing Mill and Pulpwood Pile—Davison Lumber Company, Bridgewater, N. S.

Davison Lumber Company's Saw Mill, Bridgewater, N.S.

Davison Lumber Company's Rossing Mill, Bridgewater, N.S.

Notable Enterprise at Bridgewater, N.S.

Lumbering and Pulpwood Operations of the Davison Lumber Company, Limited—Factors of Success

EIGHTY miles from Halifax, on the line of the Halifax and South Western Railway, one comes to the delightfully situated town of Bridgewater, a busy and prosperous manufacturing and distributing center. Among the chief products of the town are lumber and pulp wood, and among the numerous firms manufacturing these, the largest and most important is the Davison Lumber Company, Ltd., which took over in 1903, as a going concern, the business of E. D. Davison & Sons. The stock of the company is held entirely by Pittsburg capitalists, the president being Mr. J. M. Hastings of that city. Mr. Hastings is also president of the J. M. Hastings Lumber Co., and of the Commercial Sash and Door Co., both of Pittsburg, Pa., and is also a director in several banks and other large concerns.

The company own large timber resources, including over 200,000 acres of timberland in the counties of Kings, Queens, Annapolis, and Lunenburg, all in Nova Scotia, the timber upon which consists chiefly of spruce and hemlock with a good percentage of white pine and good hardwood. Their manufacturing plants include the following:

Two water mills at Bridgewater, N.S., with a daily capacity of 30,000 and 40,000 feet respectively.

One steam mill at Hastings, N.S., with a daily capacity of 140,000 feet.

One pulpwood rossing plant at Bridgewater with a daily capacity of 60 cords.

The two water power plants at Bridgewater are equipped with gang mills and are said to be the most cheaply operated plants of their kind in the country. The output from these mills is rafted and towed about one mile down the Lahave River to the company's large lumber docks where it is piled and seasoned for shipping direct from the piles to the vessel.

The steam saw mill at Hastings is equipped with one single cutting band; twin bands for slashing for the gang; one large gang saw, and one band resaw. The machinery in this mill is modern and up-to-date in every respect. It includes also planers, short boxboard cutting-up machinery, and lath mills. The plant is provided with a complete sprinkler system and other modern fire fighting appliances; a battery of 6 boilers of 125 h.p.; one 600 h.p. engine, and one 150 h.p. engine driving the gang. The equipment also includes a complete electric light system for the mill, yard and houses, as well as machine shops for making all necessary repairs. Thirty million feet of lumber can be piled in the yard, and railroad switches at the back of the piles provide convenient facilities for loading.

The lumber is conveyed on cars over the company's own line of about one mile, from the mill to Hastings Junction where it connects with the Halifax and South Western Railway. It is then transported 27 miles to Bridgewater where it is loaded upon vessels for shipment to foreign markets.

Near the mill site are located the company's offices, 31 houses for the use of employees, a large cook and sleeping house to accommodate 150 men, and church and school buildings. The mill is located on Springfield Lake which has a storage capacity of forty million feet of logs. All the logs are delivered to this mill by rail over the company's logging railroad.

The woods department is located at Crossburn which is 10 miles above Hastings and 37 miles north of Bridgewater. This department

Shipping Scene—Davison Lumber Company, Bridgewater, N.S.

Hastings Sawmill—Davison Lumber Company

is in charge of Mr. J. W. Cross, woods superintendent. At this place are also located large warehouses, commissaries, machine shops, roundhouses, large storage houses for construction equipment, and twenty dwelling houses.

The Davison Lumber Company operate over 40 miles of their own logging roalroad, which is equipped with three straight-connected locomotives and two general locomotives, three steam log loaders, one steam shovel for construction work, one snow plow, sixty standard logging cars, and other modern equipment.

For their logging operations and for use about the yards, the company keep 150 horses. They also own a number of cattle, pigs, etc., and are raising on their own farm, grain and vegetables in addition to hay, all of which simplify greatly the problem of securing supplies for the employees in camps and at the mills.

All the camps located along the line of the railroad, and the houses at Crossburn, are built on the portable plan and can be loaded on cars and moved where desired. An interesting feature of the company's method is the fact that they operate their own telephone system which permits of communication between headquarters and the mills and camps. The towns of Hastings and Crossburn have every facility which the average small sized town possesses, such as post offices with money order and registered letter departments, churches, schools, athletic associations, circulating libraries, etc.

At Bridgewater, about 12 miles from the mouth of the Lahave river, the company own a large number of shipping docks which will accommodate vessels drawing 20 feet. Vessels of deeper draft are loaded about a mile below these docks where about 30 feet of water is available.

The Davison Lumber Company export from six to ten million feet of spruce to South American ports annually. The hemlock and a large portion of the pine is shipped to the United States, and pine and spruce are also shipped to the West Indies. The annual output amounts to from forty to fifty million feet, the production of which gives employment to from 800 to 1000 men all the year round in the different departments. The headquarters of the company are located at Bridgewater where Mr. D. H. Foresman is resident manager.

Newfoundland's Timber and Pulp Trade

Wonderful Story of the Ancient Colony's Recent Development Briefly Told in Facts and Figures — Value of the Industry to the People

By M. S. Sullivan

AT the present time two mills only are manufacturing lumber in Newfoundland for the export trade. While not wishing to be looked upon as possessing unparalleled timber resources, yet this little colony holds undoubted forest wealth, whose development in the past, as well as the present, has helped to increase the quantity and value of its exports,—at the same time catering for all local requirements.

The lumber industry has been a source of employment for hundreds of men during a time when they were not required at their other avocations. Quite recently it has been demonstrated that large timber tracts unsuited for lumbering can be advantageously used in the pulp and paper business.

The best timber is found chiefly in the valleys and around the lakes. As one goes back towards the high land the timber becomes of a smaller and more stunted growth. Where timber has been thinned by judicious cutting in thick groves the remaining trees grow much better and attain to a greater height. There is a considerable variety of timber, including white birch, yellow birch, black spruce, white spruce, red spruce, fir, juniper, witch hazel, aspen, pine, etc.

The pine is of a very superior quality, and is really the backbone of the lumbering industry. Newfoundland pine brings good prices in the United States, English, and South American markets. Spruce is used locally for rough building work, and is now being cut in enormous quantities for pulp wood. The Newfoundland spruce is supposed to be just as good as the Canadian and United States varieties for the pulp and paper business.

Statistics of the Lumber Industry

The government returns for the fiscal year 1910-11 show that during that time 286 lumber mills were in operation, with a total output of 53,187,000 f.b.m., valued at $797,805. Of this 53,187,000 feet, fifteen mills cut 23,342,000 feet; the remaining 271 mills only 29,845,000 feet. The 286 mills employed 4,000 men for about six months. Allowing an average wage of $26, we find that the lumbering industry paid out in wages $624,000. Add to this the amount of $584,000 expended by the Anglo-Newfoundland Development Company, Limited, for cutting pulp wood, and the amount expended by the A. E. Reed Company, Newfoundland, Limited, of Bishop's Falls, for their pulp operations, and the very considerable amount is reached of $1,208,000 paid out to the laborers of this colony in six months for one industry alone, in a country which has only a population of 250,000 people.

According to the official statistics of lumber exports there has been a decline since 1906-7. The totals for five years are as follows:

	Lumber Exported Feet	Valued at
1906-7	18,614,000	$326,581.00
1907-8	16,235,000	236,914.00
1908-9	5,896,000	84,459.00
1909-10	7,707,000	144,666.00
1910-11	6,085,000	125,279.00

This is not the result of the timber suitable for export being cut out. The reason is, that the product of several of the areas which were formerly cut for lumber has now been diverted into the pulp and paper business.

At a rough estimate, the value of the lumbering industry to the colony must be in the vicinity of $900,000; and the pulp and paper industry nearly $2,000,000 annually.

Growth of Pulp and Paper Business

In Newfoundland to-day there are two of the finest, if not the finest, pulp and paper mills in the world. The plant at Grand Falls (which is owned by the Anglo-Newfoundland Development Company, Limited) is capable of turning out 60,000 tons of newsprint, and 33,000 tons wet weight ground wood pulp annually. The pulp mill at Bishop's Falls (owned by the A. E. Reed Company Newfoundland, Limited), which is financed by English capital also, has a capacity of 60,000 tons wet weight ground wood pulp annually.

The Anglo-Newfoundland Development Company will cut annually about 130,000 cords pulpwood for their plant at Grand Falls; and probably 30,000 cords will be required by the A. E. Reed Newfoundland Company at Bishop's Falls.

Other pulp mills are being talked of. One is now under construction at Campbellton, Notre Dame Bay. It is owned by the Horwood Lumber Company, Limited, of St. John's, Newfoundland. They have lumber mills at Campbellton and Dog Bay, and intend using their new pulp mill at Campbellton to take care of wood from their limits which would be of better value made into pulp than manufactured into lumber.

Another very large pulp and paper mill is expected soon to start construction work at Deer Lake, on the west coast of Newfoundland. Legislation has already been passed, conveying certain rights to a United States company who propose to go into the pulp and paper business there.

Seven years ago, where the mills and town of Grand Falls now stand, there was a wilderness, without an inhabitant. To-day it has a population of over 2,000 people, living in comfortable homes, many of them with all modern conveniences. A splendid system of sanitation has been established and electric light and filtered water are provided in every home. The pluck and foresight of the Harmsworth Brothers of London cannot be too highly commended for embarking on such an undertaking in what was then an unknown country. Their example has since been followed by the A. E. Reed Newfoundland Company. These two companies have now made manifest to capitalists that their enterprise in starting the pulp and paper industry in Newfoundland was amply justified.

Newfoundland's Industrial Advantages

One of the reasons which doubtless influenced English capitalists to come to Newfoundland to start their enterprises was that Newfoundland was one thousand miles nearer to England than the parts of Canada and the United States where news-paper is manufactured. It was also ascertained that there was practically an unlimited supply of pulpwood,—principally spruce and fir,—a very large percentage being spruce. Also, there was an abundance of labor to be had for pulp and paper making, and for other industries.

It was claimed, when the project was first discussed, that they could not make paper in a country where the people were fishermen only, as they would never give up the fisheries to become mill men; and, even if they did, would never be successful at it. At the present time 97 per cent. of the employees of the Anglo-Newfoundland Development Company are Newfoundlanders. The work they have done

since the mill started proves that these untrained Newfoundland fishermen can become first-class workmen in every department of the plant.

Previous to 1909 there was no pulp and paper exported. Since then it has added considerably to the colony's exports. In 1909-10 there were exported 13,993 tons pulp, valued at $76,304; 1909-10 there were exported 7,866 tons paper, valued at $357,155; 1910-11 there were exported 21,170 tons pulp, valued at $251,048; 1910-11 there were exported 21,064, tons paper, valued at $943,699.

The export of pulp and paper in 1912-13 should be, approximately, $2,500,000.

Newfoundland possesses many fine water powers yet undeveloped; and several hundred square miles suitable to the pulp and paper business. The time is probably not far distant when the colony will take a leading place in supplying pulp and paper to foreign markets.

Porcupine Trail Timber Resources

Spruce the Most Extensive Growth—White Pine, Jack Pine, Birch and Poplar also Found in Moderate Quantities

The timber resources along the trail line between Gowganda and Porcupine, Ont., are referred to in the annual report of the T. & N. O. Railway Commission as follows:—

Except in parts recently burned the district is well forested. Stony areas or those with a soil composed of glacial material containing many boulders, which in this district are the most extensive, produce a mixed growth comprising the various conifers together with birch and poplar. The sand plains are covered chiefly with jack pine. Flat areas and the parts along the water courses are wooded chiefly with spruce and cedar.

White and red pine are the most valuable trees, but their distribution is not extensive, and they grow only on the high ground where they are most liable to be destroyed by fire. Some good blocks found on the ridges about Duncan lake have already been partially destroyed. Similar blocks and patches on the high ground in the western part of McArthur township have suffered from the fires of the last two summers. Scattered trees are to be found among the other timber on most of the higher ground. Jack pine has the widest distribution of all the trees, growing as it does with the poplar and birch on the high stony ground and with spruce on much of the low ground. Spruce grows everywhere, but is most plentiful along the streams and lakes. Strips of country wooded chiefly with birch and poplar are probably burnt areas of half a century ago. A strip one to two miles wide, west of Mount Sinclair in the townships of Montrose and Hutt, extending as far as the recent brule alone the Grassy river is likely one of these areas.

The largest area of spruce lies along the North branch of the Grassy river. At the boundary of Hutt and Zavitz townships, this area has a width of a mile on either side of the stream. From the top of Mount Sinclair the whole country from Seven-inch lake northwest to the Redstone, as well as that along the Grassy to the south appeared wooded with conifers. As there was no opportunity of examining this part in detail, it is difficult to form an idea of the proportion wooded with jack pine and that wooded with spruce.

The north-western part of Zavitz township, for a mile east of the Redstone and north to the lakes on the boundary is mainly old brule and windfall. The central part of the township is wooded with spruce and mixed timber in alternating strips according as the ground is high or low; but for a mile west and north-west of Kitchimine lake in the north-eastern part, the timber has been burned or blown down.

The country about the south end of Mushkasenda lake, for two miles to the east and two to the south, consists of sand plain wooded with jack pine mostly under a foot in diameter. The canoe-route leading to Sinclair lake was followed to the south through eight or nine miles and the connecting portages, starting with two small lakes and portages of twenty, ten and five chains. On the shore of the next lake which is irregular in shape and two miles long, the only rock seen out-cropping through this glacial sand occurs as a hill of greenstone. About this lake in the southern part of English township, there is a good growth of mixed timber, with some patches of thrifty young red pine. The lakes on the route in Semple township are surrounded by a sand area, timbered chiefly with young birch and poplar.

The part between Peter Long's lake and Mushkasenda was burned in 1908. This burning may have extended through Musgrove into Bartlett and McArthur townships, as brule of about this age crosses the Musgrove-Bartlett line and extends for about six miles northward along the lakes and creek. The advent of the prospector has greatly extended these burnt areas in the last two years. So fierce have been the fires of this year that in the townships of Deloro and Shaw even the timber in the swamps has been destroyed. It seems unfortunate that such large areas of timber should be burned for lack of that knowledge of woodcraft which has preserved them as forest for so long a time.

A very small proportion of the timber of this district is of mature age. On the eastern slope of the Mount Sinclair ridge, white pine thirty inches in diameter and spruce a century and a half old are quite numerous. In the ravines running down the slope the cedar are also of large size. Many of the pine trees scattered through the other timber on the high ground, and occurring as clumps among it, appear to be remnants of an earlier forest growth, for none of the other trees are over a century old. The scattered nature of the pine, and the fact that in the northern townships where it is most accessible, the best has already been destroyed, greatly reduces its value. On the whole, the areas of spruce must be considered the best resource in timber of the district.

Two water powers are being developed to supply power to the mines at Porcupine; one on the Mattagami river at Wawaitan Falls, and the other at the High Falls on the Grassy river. Both of these provide a head of 100 feet, and an ample supply of water for the development of a larger number of horse power than will be required for some years to come. The thirty-foot fall on the Grassy in Musgrove township and Kenogamissee Falls on the Mattagami, thirty miles above Wawaitan Falls, are other available sources of power. The areas of spruce timber suitable for pulpwood along the Grassy river and its tributaries, and in lesser extent along the other rivers of the district, are a source of wealth immediately available with the aid of these water powers.

Cooperage Conditions During 1912

Stocks Reduced by Bad Weather and Scarcity of Timber—Only 75 per cent. of a cut—Changes in Woods Used for Stock

Written specially for the Canada Lumberman by James Innes

Cooperage stocks put in at the mills throughout Canada last winter were very light, partly owing to the bad weather in February and March, and partly owing to the growing scarcity of timber, suitable for cooperage stock, in proximity to the mills. Quite a number of mills have gone out of commission entirely this year, that were running last year—while we do not know of a single new mill having been built. As near as can be estimated, there will not be over 75 per cent. of the amount of cooperage stock manufactured this year that was made last year.

Elm, which is the principal timber used for staves and heading, is becoming scarcer every year on account of there being a good demand for elm lumber. Prices of standing timber and logs have advanced nearly 50 per cent. during the past three years. While the output is decreasing, the consumption is increasing. The consequence is, that very little stock is now being exported, in comparison with what was shipped out to the United States and foreign countries a few years ago, the home market consuming the bulk of the stock that is made, whereas a few years ago the exports were double the amount of home consumption.

Experiments are being made with other woods for the manufacture of staves and hoops, and undoubtedly birch will cut a considerable figure in future, in the cooperage business. Basswood is almost a thing of the past for heading, but there is still plenty of other timber suitable for heading which makes just as good heads if properly manufactured. Balsam, spruce, maple and birch will be used almost exclusively for heading in the future.

There is more flour being put into wood at the present time than there ever was in the history of Canada. The use of barrels for sugar, which had dropped considerably, is increasing again, as the barrel is found to be the best possible package for sugar, especially where it is to be shipped any long distance and is in danger of contamination from other products. There is also more lime and more cement being put into barrels than in any former year, while the apple trade is also using more barrels. The estimate of the Chief of the Fruit Division at Ottawa this year is that a million more barrels for apples will be required than were used in 1911. While British Columbia ships most of its apples in boxes, the other provinces barrel their apples almost entirely. As for winter apples, it has been found that the barrel is the only safe reliable package that will carry the apples in good condition and preserve them for winter use. The present prospects are that the consumption of cooperage stock will go on increasing, and it is therefore necessary for the manufacturers of stock to obtain a substitute for elm for their staves and hoops, the same as they have done in getting a substitute for basswood for heading.

There is ample timber in the north for the manufacture of cooperage stock for years. It is only a question of having it properly manufactured, and put on the market in good condition, and there is no reason why the northern woods will not take the place of elm almost entirely.

Behind The Moulders—Estate James Davidson Plant, Ottawa

A Great Woodworking Industry

Estate James Davidson, Ottawa

A Nest of Machines—Estate James Davidson Plant, Ottawa

Notable Ottawa Woodworking Firm

Remarkable Achievement in Industry Building as Illustrated by Plant and Equipment of Estate James Davidson—History of the Business

In the passing of James Davidson in October last, Ottawa lost one of its most prominent manufacturers, and a citizen who was held in high esteem by all classes. The life of Mr. Davidson was a fine example of what may be accomplished in Canada by a young man's unaided exertions. Buoyant, courageous and enterprising, he began life amid many obstacles to success, but, blessed with a cheerful optimism and unfailing energy, he had risen while yet in the prime of life to be one of the most prominent and successful public men in Ottawa. In addition to being head of one of the largest manufacturing firms of its kind in the country, he was and had been for years past one of the four controllers of the city.

Born in Ottawa in 1855, the late Mr. Davidson was found early in life working in the sawmills of that place. In 1874 he started in the milling business at Mount Sherwood with his brother and stepfather. It is worthy of note that in this first venture the wheel operating the saws was turned by hand. Even though its appliances were primitive, the business began to grow, and soon a greater market for its larger output was needed. In 1878 the late Mr. Davidson left for Liverpool, where he remained seven years; advancing the interests of the firm. Meanwhile, the factory had been extending and the work of door and window making was commenced, which, to-day, is the principal part of the business. Three times the factory was wiped out by fires which entailed direct losses of over $250,000, but, nothing daunted, the late Mr. Davidson and his brother-in-law, the late Wm. Thackeray, rebuilt it three times. After the 1903 fire the factory was moved to its present site, at the corner of Albert and Rochester streets. It was operated for a time by the firm of Davidson & Thackeray, but upon the death of the latter member, seven years ago, was carried on by the late Mr. Davidson alone.

On Mr. Davidson's death, the management of the plant was taken over by the eldest son, Mr. Grant P. Davidson, a young, energetic man, who will carry on to further success the extensive business his father founded. He is ably assisted by two trustees, who have had long experience in this class of business, Mr. Leander Henderson, superintendent of the sawmill and factories, who has been connected with the firm for twenty-six years, and was the late Mr. Davidson's right-hand man. He was formerly in the employ of Wm. Cane & Company, of Newmarket, Ont. Mr. A. G. Rose, the secretary-treasurer, has been connected with the firm for over twenty-eight years, having always attended to the financial end of the business, and being an expert accountant.

The timber limits now owned by the company consist of some 150 square miles, situated on both sides of the Coulonge River and heavily timbered with white and red pine, spruce, cedar, basswood, oak, birch, maple and ash.

The sawmill is situated at Davidson, Pontiac, Quebec, at the junction of the Coulonge and Ottawa rivers and on the line of the Waltham Branch of the C. P. R., about eight miles above the City of Ottawa. This village was established in 1900 as the result of the lumbering industry carried on by Davidson & Thackeray, of Ottawa, and now controlled exclusively by the Estate. Here are located the buildings and other necessary facilities, including saw, shingle and lath mills, offices, workmen's house, stables, ice-house, blacksmith shop, boom house, private railway station, railway sidings, etc., all built in a sixty-acre reserve. Outside the mill property is the general store, post office, Dominion Express office, hotel, etc., controlled by private parties.

The mill is equipped with two circular saws and a gang as well as lath and shingle machinery, with an output of 85,000 feet per day. Power is furnished by a battery of four boilers 6 x 16 feet, one 250 and one 125 h.p. Waterous engine.

The Factory

Most of the lumber manufactured at Davidson is utilized in the immense woodworking plant at Ottawa. The factory at Ottawa, as it stands to-day, was completed in 1905 and is a monument to the enterprise and genius of the late Mr. Davidson. It is without doubt one of the largest and most modern woodworking establishments in Canada. The capacity of the door department is a door a minute. This, however, is only one branch of the business, as the manufacture of sash, blinds and mouldings, flooring, sheeting, boxes and box-shooks, clapboards, stair work, refrigerator and toboggans is very extensively carried on.

Four acres of ground are occupied by the factory and warehouse buildings, including lumber and stock sheds. It faces on the tracks and terminals of the Canadian Pacific and Grand Trunk Railways, giving ample opportunities for unloading cars. The mill, dry-houses, and engine and boiler houses are constructed of brick and are as nearly fireproof as it is possible to make them. The plant and offices are also equipped throughout with an automatic sprinkler system, installed by the Vogel Company of Canada, Limited, Montreal.

The power house is of brick, 40 x 60 feet. It contains a Goldie & McCulloch latest improved Corliss 25 x 48 engine of 750 h.p. and five large boilers 6 x 16, manufactured by W. G. Campbell, of Ottawa, is equipped with Fleming Hollow Grate Bars and a special design of furnace for burning shavings, cuttings, etc. A part of the power house consists of a shavings vault 60 feet high and 40 x 30 feet. On top of the shavings vault is a separator eight feet in diameter and 16 feet high and another on the main mill is 12 feet in diameter. These separate the sawdust from the shavings. The sawdust goes into bins directly over the boiler.

The mill proper is 300 x 200 feet, with an "L" 75 x 200 feet. The dry-houses are 75 x 100 feet. One lumber shed is 22 x 400 feet, while the moulding building is a double shed 80 x 200 feet. The stable is 24 x 70 and has accommodation for twenty horses. There are private

Grant P. Davidson, Manager

A. G. Rose, Secretary-Treasurer

Leander Henderson, Mechanical Superintendent

Door Department—Estate James Davidson Plant, Ottawa

Main Corridor—Estate James Davidson Plant, Ottawa

sidings on the Canadian Pacific and Grand Trunk railways. From these sidings wagons are loaded with material incidental to the sash and door business, which goes directly into the dry kiln. This dry kiln, which, like the mill and office, receives its heat from steam supplied by the boilers, has a capacity of 100,000 feet. It was installed by Sheldons, Limited, of Galt, Ont. From the kiln, the doors of which open immediately into the factory, the lumber passes through a No. 90 new Berlin Fast Feed Double Surfacing Machine. From this machine it progresses rapidly to others, all set and arranged so that the material is handled without loss of time or waste of motion. Passing from the planers it is transferred to some of the several rip or resaws via automatic tables where cut-off saws divide it into desired lengths, and from there to others of the numerous machines which fill the main floor of the building. Much of the finished produce is manufactured almost entirely by these machines, tended by skilled machine hands. Other work may, however, be so elaborate and delicate in its nature that it must be executed mostly by hand and for this work a large number of skilled bench hands are required.

The blower system, installed at a cost of $7,500, consists of numerous pipes so arranged that the dust, shavings, etc., are drawn into them directly from each machine and by suction drawn into main pipes leading to a reservoir known as the "cyclone," from which the waste is automatically fed to the furnaces. Heat goes through all buildings and office. The heating and blower system was installed by the B. F. Sturtevant Company of Boston. It includes a standard 150-inch fan of the three-quarter housing type, driven by horizontal centre crank engine having seven-inch cylinder and arranged to draw the air through a heater containing twelve standard four-row sections. The air is distributed first through an underground tunnel and thence discharged into an overhead system of galvanized iron piping, carried in each wing of the building. The most important feature of this system is that all of the heating surface is massed in a single casing placed entirely outside the building, and a forced circulation of warm air is secured through an extended system of overhead piping with its downward discharging pipes.

In the "L" on the main floor are located the heating and glue rooms. These are equipped with more than the ordinary amount of steam heated pipes, warmth being a requisite for successful glue work, of which much is done in the production of fine veneered material.

The Planing Mill

The equipment of the planing mill consists of one No. 90 Berlin Fast Feed Planer and Matcher with complete equipment of profiling attachments, and one special hardwood flooring machine made by Hoyt & Brother, Aurora, Ill. Connected with this machine is a self-operating cross-cut saw and an end matcher. In this department are also a large re-saw made by the W. B. Mershon Company, Saginaw, Mich.; an S. A. Wood double surfacer, as well as a Gregor-Gourlay gang-rip saw, two Berlin Machine Works Stickers, dowel pin machine and two power feed rip saws for ripping the moulding stock for the stickers.

All the moulding comes uncut from the kiln to the power feed saws. This does away with any additional handling whatever, as the operators take the lumber from the cars as they are wheeled out of the kiln, thus saving a large amount of work every day that would otherwise be necessary. All lumber for the department is sorted under cover or in the mill proper. Lumber coming up for the kilns is loaded direct by off the sleighs or wagons on to the cars or in the dry

Interior of No. 1 Lumber Shed—Estate James Davidson Plant, Ottawa

Corner of Box Shop—Estate James Davidson Plant, Ottawa

kiln, and after drying, these cars are taken on trucks into the mill and to the particular department for which the lumber is intended.

The Door Department

In the door department, as in all other departments, economy in production has been secured. From the drays, the lumber is loaded on to large trucks in the kiln and, after being seasoned, passes through a dry-shed to the main building and to the door department without having been handled again. The lumber is planed by a No. 186 double surfacer made by the Berlin Machine Works, of special design for dressing up door stock. From the door planer the lumber passes through rip-saws, after which it goes to self-operating cut-off saws made by E. B. Hayes of Oshkosh, Wis. All the material is handled from trucks to machine to trucks thus ensuring a minimum of handling. The equipment for manufacturing doors, consists of two complete sets, one of dowel door machinery and the other for all other classes of doors. These machines are so placed that the material passes from one to the other in natural sequence. Thus when the lumber is finished it is handy to the clamping machine.

From the cut-off saws some parts go to the double-end borer, made by the E. B. Hayes Company. The stiles go to the stile borer, where they are bored, and the rails to the rail borer. The latter then go to the automatic glueing and dowel driver where the dowel pins are inserted automatically, and glued. The operation leaves them ready for the door power clamp machine. After clamping, the doors are all handled by a Berlin 48-inch latest type of six drum sander. This machine sands the doors on both sides with one operation which means a great saving in handling. The better class of doors, as odds, go through a single end tenoner, door sticker, chisel mortiser,

Sawmill at Davidson, P. Q.

chain saw mortiser, relisher and door clamp. These, with the exception of some lighter saws, include the equipment of the door department.

The Sash Department

The material for sashes goes through almost the same process as that for doors. The equipment includes single and double end tenoners, chain-saw mortiser, sticker, relisher and boring machine. The machinery in the window and door frame department includes cut-off saws, rip-saws, window pocket machine groovers, beaders, and a large double headed machine for checking the head and jambs of door frames at one operation. Besides these, are a drum and disc sander, combination iron saw tables for mitering, leveling, etc., three buzz planers or jointers and a 30-inch double surfacer, also a number of carpenters' benches for the manufacturing of office and shop fittings, counters, etc. The material of this department is sanded by a Berlin 72-inch three-drum sander.

A cabinet and joinery department has just been completed as an extension to the joinery department, at a cost of $10,000. This building will be used for cutting up various kinds of hardwood, also for storage of kiln-dried hardwood.

The Box Factory

The box factory is a building 100 feet square. The machinery in this department is all of a special nature, the most noticeable of which is a box nailer from the Morgan Machine Company, Rochester and a box nailer from the Doig Est., New York; a machine for driving corrugated fasteners; a Berlin Horizontal re-saw, hopper feed; a Berlin power feed double cut-off saw; a Connelly and Dengler printing press, as well as one from the Morgan Machine Company; two power box board squeezers from the Mereen Johnson Company, of Minneapolis; six sets of rip and cross-cut saws; two Morgan power tongue and groove machines, and a Morgan complete set for making beer and ginger ale cases, of which the firm make great quantities, both nailed and in shook form in carload lots. In connection with this an 8-foot Linderman dovetail machine is used for making ends for boxes.

The Filing Room

The grinding and sharpening equipment is in keeping with the modern ideas followed throughout the entire plant. Besides smaller machines, there are to be found here, a band re-saw grinder, automatic circular grip grinders, a large machine for grinding planer knives and an automatic grinding and setting machine for small band saws used in scroll work. A machine shop has also been added, equipped with two iron working lathes; one large power feed drill; one high-speed shaper and one horizontal planer. Five men are constantly employed and all the repair work of the mill at Davidson is done here.

The Lumber Sheds

The quantity of lumber carried in stock is well over a million feet, all of which is under cover. The sheds occupy the two sides of a rectangle 300 x 400 feet. They are 18 x 20 feet deep and 20 feet high. In the centre is another, 100 x 25 feet, with a plank driveway through the centre, 22 feet wide. One side of this shed has been finished for stock sash and stock doors. The other side is double decked, principally for dressed stock such as mouldings. This shed is one of the best of its class in Canada.

Electricity is used to light the various buildings, lumber sheds, etc., upwards of 500 lights being required for the purpose. Every detail about the whole plant has been worked out so as to secure the maximum of production at the minimum of cost. All the machinery in the entire wood-working factory was installed under the supervision of the superintendent, Mr. Henderson, one of the most competent superintendents in Canada.

Insurance Company Extending its Field

The Toledo Fire and Marine Insurance Company, who claim to be the oldest lumber specializing stock fire insurance company, and who have successfully conducted their business for ten years upon a capital of $10,000, have decided to adapt their company to new conditions by an increase of capital and surplus. The object is to enable the company to take advantage of the opportunities of a broader field than has been open to it under its smaller capitalization. The new stock will be offered to lumbermen and millmen in Canada and the United States. The plan for enlargement contemplates a $500,000 company, with capital of $250,000 and a surplus of $250,000.

The company on entering the Dominion of Canada will make the customary deposit with the Dominion authorities of $50,000. As it is the desire of the directors that the new stock be well distributed throughout the field in which the company will operate, only an amount equivalent to the Canadian deposit will be held open for subscription in Canada.

The opportunity to subscribe to this portion of the new stock is being offered exclusively to Canadian lumbermen who have in past years done business with the company or its underwriting managers, the Lumber Insurers General Agency, through their Canadian office, 42 Central Chambers, Ottawa.

The Berlin Wood-Working Magazine

An attractive and interesting woodworking magazine comes monthly to the writer's attention under the name "Berlin Quality." It is stated to be a Bulletin of Improvements, and fully merits that title, as far as the woodworking industry is concerned.

The most improved ways of doing things about the mill or factory are told in articles by national writers on woodworking topics, mill superintendents, and employees of long experience in their particular field of work. The magazine is, in fact, a regular clearing house for ideas on improved woodworking methods and equipment.

The Berlin Machine Works are constantly improving woodworking machinery efficiency. Several machines that cut manufacturing costs to about one-quarter of what they now are, for certain kinds of work, have recently been designed and are being manufactured by them. One or more such machine achievements of the Berlin Engineers is recorded by picture and description in nearly every issue of the magazine.

The interior views so extensively used in illustrating the magazine, take one mentally into the plants of many of the largest and most progressive woodworking concerns in the world. They show the reader the machines and methods employed therein and how others in his line are solving the problems that confront him.

A small subscription price of 24c a year is charged for "Berlin Quality." This amount merely pays the postage. The publishers feel that they are rewarded for their effort and expense in getting up a helpful magazine for the woodworking trade by the publicity gained for Berlin machines. Subscriptions—either stamps or cash—should be sent to the Publicity Bureau, The Berlin Machine Works, Beloit, Wis.

Paper Making In the Saguenay District

Price Brothers and Company's New Mill at Kenogami, Quebec—Splendid Equipment Installed—Operations to Commence Early This Fall

EARLY this autumn the new pulp and paper mills at Kenogami, now being erected by Price Brothers & Co, Limited, will be in operation, making the second plant in the Saguenay District of the Province of Quebec to transform the log into news print paper. The first plant of the Jonquiere Pulp Company on the same river has been in operation a number of years and for some time back has been controlled and operated by Price Brothers & Company.

Mr. Wm. Price, president of Price Brothers & Company, is well known to every lumberman in Canada. He enters, in this enterprise, a field almost new to him, though he has been connected with the pulp and paper cardboard business for a number of years and the firm's lumbering operations have been as wide as the province.

Mr. Price's right-hand man in the paper end of the business has been Mr. O. A. Porritt, the general manager of the Kenogami Paper Mills, and also vice-president and manager of the Jonquiere Pulp Company. Becoming connected with Mr. Price at Rimouski ten or twelve years ago in the operation of the pulp mill there, Mr. Porritt was later placed in charge at Jonquiere, and the credit for this new development lies largely at his door.

Imbued with a keen appreciation of the great future which the manufacture of news print holds in store for this section of Canada, he threw himself body and soul into the work of building this fine plant, and it stands to-day a monument to his genius for organization and his ability to handle a great undertaking.

Location of Mill and Limits

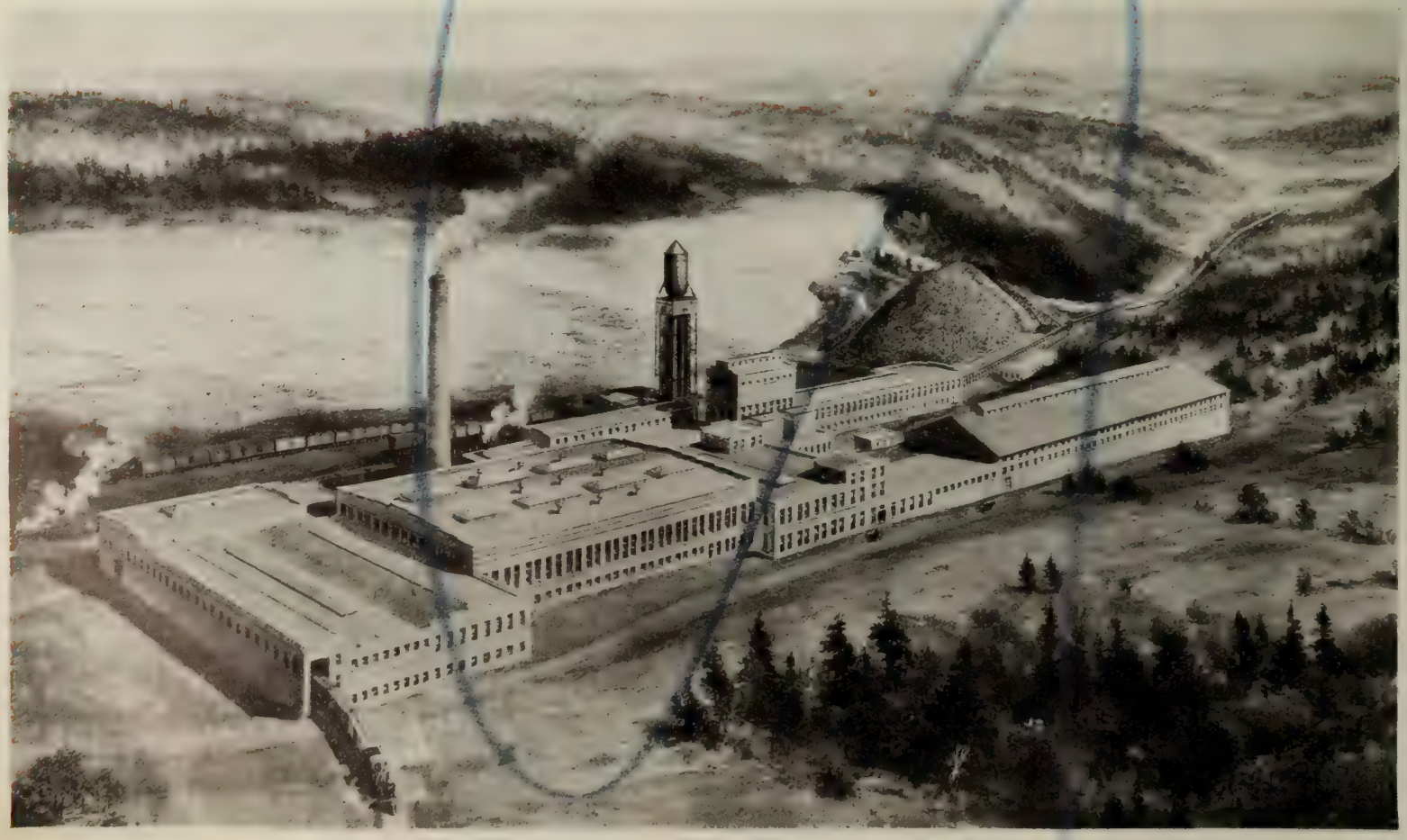
The new mill is situated one and a half miles from Jonquiere, a little above the point where the Riviere aux Sables enters the Saguenay, the site being one of great natural beauty. In the vicinity there has already grown up the thriving little town of Kenogami. This town and the mills are named after Lake Kenogami, which serves not only as a storage reservoir for power, but also, on account of its depth, forms a natural settling basin, ensuring a continuous supply of clean water for use in the actual manufacture of the paper.

Back, or south of the lake, are some of the timber limits owned by the company, which have been cut into in a small way in the last few years, and which provide a portion of the spruce used. Other limits are located on the Belle Riviere and the Metabetchouan, flowing into Lake St. John. The cut on these rivers is boomed at the lake and transported by the Quebec and Lake St. John Railway to the mills. Then, across the Saguenay, a little east of the mill site, is the mighty Shipshaw River and the vast limits of the company tributary to it, some of them not yet explored. In all there are about 4,000 square miles to draw on, giving enough timber to supply the present consumption of 225 cords per day twice over for all time to come. The extent of this territory is so great that the ground is not cut clean, but enough seed trees are left to secure continuous reproduction without resorting to replanting.

It will be readily understood that to cut and drive enough logs to supply a daily consumption of 225 cords involves considerable work and no small capacity for organization. Mr. J. Mc.D. Grosart, who has been in the employ of Price Brothers & Company a great many years, is in charge of this work. Starting with the company as a junior clerk, on his arrival from England, where he was born, he has steadily made his way upward, proving by his ability and capacity for hard work, his fitness to take charge of this immense stretch of limits.

During the season just ended there was cut and driven by the company 30,191,022 ft. board measure of spruce and balsam, all 8½ ft. and 13 ft. logs, averaging 7 inches in diameter. For future years the cut is estimated at a minimum of 45,000,000 feet board measure.

The drive was a particular success this year, taking only about twenty-one days to complete, and was not marred by accident of any kind. The spruce is of a very good quality, free from knots of any kind, which prove so troublesome to the pulp maker, and the percentage of balsam is small. No hemlock was cut, there being none of this wood in the limits. A fire patrol of twenty-five men with telephonic communication has been organized to form the nucleus of a fire fighting force to cover in course of time all the limits, and as a further protection to the company, Lloyds, of London, have written a policy to cover serious fire losses in the woods.



New Pulp and Paper Mill at Kenogami, Quebec—Price Brothers and Company, Limited

William Price, President

The logs cut on the Rivers L'Abbe, Ecorces, Morin and Pikauba are boomed in Lake Kenogami at the mouth of the Pikauba and are rafted across to the Riviere aux Sables and then floated down to the mills. The logs coming in by rail from Lake St. John are skidded from the cars and hauled into the wood preparing room by the same bull chains as the floated logs. Coming up sideways in bunches, they run against the "slashers," which cut them into two feet lengths and drop them on to conveyors, and very quickly now they begin to lose their identity as wood.

Along both sides of the room are the barkers, thirty of them, made by the Waterous Engine Works Company, Brantford, Ont., and run in sets of two by motors. They are fed continuously and conveniently by a system of endless chains. On one side of the room the conveyors for the barked blocks run to the block sluice and on to the grinder room or piling ground as required. On the other side the conveyor is reversible, going sometimes to the sluice and sometimes to the chippers. There are two chippers and crushers combined, made by Baker & Shevlin Company, of Saratoga, N.Y., and these shred up the blocks into small pieces suitable for use in the sulphite mill digesters. The chips are screened in a Ryther & Pringle screen and conveyed by belt to the chip loft in the digester house. This loft is made of concrete and is fireproof, which is something of a novelty in paper mill construction. There are two digesters made by the Portland Company, each approximately 12 feet internal diameter and with a combined capacity of fifty tons a day. The centrifugal pumps are made by the Lawrence Pump Company, and other pumps by Smart Turner & Company, of Hamilton.

The acid tower, as may be seen from the illustration of the plant, is an imposing structure of steel and with the tank on top is 214 feet high. It contains a stairway and an elevator for hoisting the marble and other supplies.

The wet machine room, which contains also the screens for both ground wood and sulphite mills, is most interesting, not so much on account of the machinery installed as for the neat compactness with which the whole is designed. There are 14 centrifugal horizontal screens, Quiller & Stubbs type, built by the Waterous Engine Works Company, twelve of which are placed over the same number of ground wood double wet machines, also built by the Waterous Company. The screened stock is discharged into the wet machines and any overflow goes into a concrete stock tank and is pumped from there to the deckers. The sulphite stock is run through a concrete riffler tank and also a worm knotter and is screened on sixteen flat screens built by the Waterous Company. There are only three single wet machines for sulphite, most of this stock being pumped direct to the sulphite decker chest.

The Grinder Room and Its Equipment

The grinder room is situated at the mouth of the river 3000 feet from the dam and about 300 feet lower than the paper mill.

The penstock was built by the Petroleum Iron Works and is 12 feet inside diameter, 2900 ft. long, made from ½-in. steel boiler plate at headgates, gradually increasing to 15/16 in. at outlet to allow for increased pressure due to the great head of 280 feet. The headgates are operated by electricity.

There are 24 grinders of the International type, built by the Waterous Co., 3 pockets on each, and they take a stone 54 in. in diameter and 28 in. face.

The turbines were built by the Allis-Chalmers-Bullock Co. and are all of the Francis type. Four of them, each developing 4,000 h.p. at full gate, are directly connected to the grinders, one wheel to 6 stones, three on either end. These are designed to run 225 r.p.m. and at full gate the grinding plant will make 168 tons every twenty-four hours.

O. A. Porritt, General Manager

To handle this large amount of material there is a turbine pumping unit, built by Allis-Chalmers-Bullock Co., consisting of a Francis type turbine directly connected to two Worthington type 2 stage 12-in. centrifugal pumps which use 600 h.p. and deliver 4000 U.S. gallons per minute to the wet machine room against a head of 340 ft. The pipe line connecting is 24 in. inside diameter and 3000 ft. long.

One end of the grinder room building is set apart for the hydro-electric development. The equipment consists of two turbines of the same type as the grinder turbines and built by the same firm. These two turbines are fitted with oil governors and directly connected to two Westinghouse generators forming two independent units. The generators are 3 phase, revolving field, and 1875 kw. capacity at full gate. The pressure is 6600 volts which is stepped down in the transformer house to 550 volts for operating the power and lighting circuits in the mill.

The whole electrical lay-out is the most perfect in the world as far as paper mills are concerned, no less than 139 motors being used for various purposes throughout the plant.

The beater room is equipped with 6 beaters, 2 for each paper machine and each pair of beaters is driven by an electric motor with silent chain drive. There are also 2 broke beaters in the basement each chain driven by motor.

There are 3 Jordan engines, one for each paper machine, directly connected to electric motors. All the beaters and Jordans were supplied by E. D. Jones & Sons of Pittsfield, Mass.

There are eight Waterous Ground Wood Deckers put in over a concrete decker chest which is 17 ft. x 70 ft. x 10 ft., and on the sulphite decker chest 30 ft. x 17 ft. x 10 ft., there are three pneumatic thickeners by the Sherbrooke Machinery Company.

The save-all plant is isolated from the mill and contains 6 pneumatics, as well as the water filtering plant. The water is taken from the river and is already so well settled in Lake Kenogami as to require little filtering, but, to make absolutely certain of its cleanness, it is run through wire screens being distributed to the mill by two pumps.

Machine Room Equipment

The three paper machines were built by Chas. Walmsley & Co., Bury, England, and all are 156 in. wide trimming 145 in. of paper.

New Mill Dam, Price Brothers & Co., Limited

Rossing Plant and Wood at L'anse au Cheval, Price Bros & Co.

Log Driving Scene—Price Brothers & Co., Limited

Each machine has three presses, 75 ft. wide and measures 199 ft. 10½ in. from breast roll to reel. The calendars were made by the Farrell Foundry Co. and the Bagley & Sewall Co. built the winders. Each machine is run by its own steam engine and the exhaust steam is used in drying the paper.

The output of finished paper is 150 tons a day and the speed of the machines 600 ft. per minute.

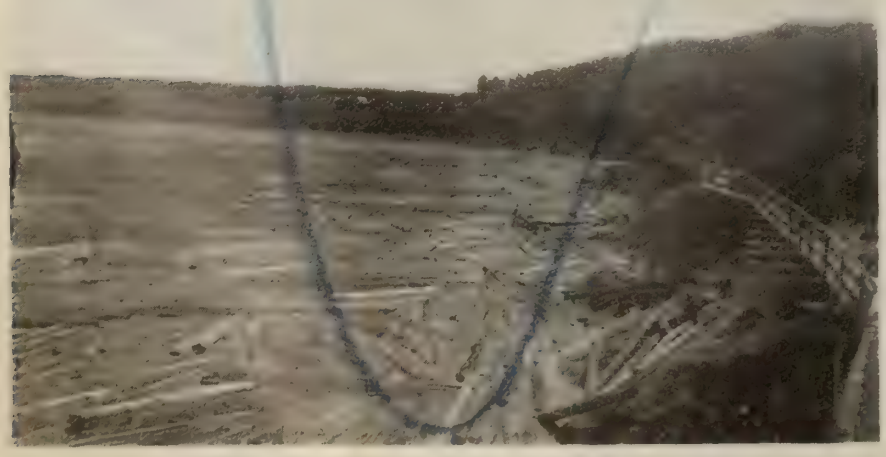
The boiler house contains eight 600 h.p. return tubular boilers by the Robb Engineering Co., which are fed by Murphy Automatic Stokers. The smoke stack is 125 ft. high and there are also 2 fans for induced draft, and one Green Fuel Economizer.

All the buildings housing the plant are of steel and concrete construction, the general contractors being the Canadian Stewart Co. The entire plant was designed by Mr. G. F. Hardy, the well known paper mill engineer of New York City, and his representative on the work was Mr. H. Bennett. Mr. R. S. Kelsch of Montreal was the consulting engineer on the hydraulic and electrical work.

A further hydro-electric development is now being made on the River Shipshaw which will be ready and finished for use on January 1, 1913. The power developed will be 7,500 h.p. on a head of 90 feet. The turbines and generators are made by the Allis-Chalmers-Bullock Co. and the Canadian Westinghouse respectively, and are similar to the one in the grinder room. The transmission line runs to the same transformers and is 2¼ miles long.

This development has been made to allow for an increase in the production of the paper mills, and electrically driven grinders will be installed at Kenogami as occasion calls for them. Until more paper machines are put in, the Shipshaw power will be used in the event of low water in midwinter in the Riviere aux Sables, so that the production of the pulp mill can be maintained at the highest possible level the year round.

Among the recent new advertisers in the Canada Lumberman are Messrs. J. M. Clifford & Company, of Detroit, Mich. This company carries a very large stock of hardwoods, ninety per cent. of their supply being obtained direct from hardwood mills in Kentucky owned by the president and vice-president of the company. They are in a position to make prompt shipments and always have cars on the track to take care of rush orders. They traced a recent shipment from their yard to Toronto, which reached its destination in five days. They claim to have on hand at the present time the largest stock of hardwood ever carried by any firm in the State of Michigan.



Some of the Raw Material Price Brothers & Co., Limited

Canadians Encouraging National Hardwood Association

The decision of the National Hardwood Lumber Association to establish an office in Canada has been so well received that the services of Mr. John Miller, Chief Inspector for Canada, are already in extensive demand. The association is so well pleased with the outlook for the spread of its work in Canada that the secretary-treasurer, Mr. Frank F. Fish, paid a visit of a couple of weeks to Canada during the month of August in order to make further inquiries into the opportunities in this country. He found the hardwood lumbermen sympathetic and enthusiastic and secured a large number of new members for the association.

Mr. Fish was a welcome visitor at the office of the Canada Lumberman and Woodworker. He reports that during July the inspection department of the association inspected 15,909,500 feet of lumber and that July was the banner month in the history of the association as the inspections exceeded the previous high record mark by 763,000 feet.

We take pleasure in publishing for the readers of the Canada Lumberman, portraits of Charles H. Barnaby, the recently elected president of the association, and Mr. Frank F. Fish, its capable and efficient secretary-treasurer.

Mr. John J. Miller, the chief inspector for Canada, will make his headquarters at Toronto.

Mr. Charles H. Barnaby, President of the National Hardwood Lumber Association, whose portrait is published herewith, was born in 1870 in Indiana. He was a son of a well-known Indiana lumberman and went into the sawmill business himself at the age of fifteen. His whole business life has been intimately connected with the

C. H. Barnaby, President N.H.L.A.

F. F. Fish, Sec.-Treas. N.H.L.A.

lumbering business since that time. Indiana is well known throughout the United States as the home of quartered oak and is a historic state so far as hardwoods are concerned, on account of the wonderful quality of its oak. Mr. Barnaby has been on the executive committee of the National Hardwood Lumber Association continuously for the last ten years and is a charter member, having been one of a group of fifty lumbermen who organized the association in 1896. He was elected president on June 7th last at the annual meeting. Mr. Barnaby is an active association worker and was President of the Indiana Hardwood Lumber Association for some years. He also held the office of chairman of the arbitration committee of the National Wholesale Lumber Dealers' Association.

Mr. Frank F. Fish, Secretary-Treasurer of the National Hardwood Lumber Association, was born in Racine, Wis., in 1871. His father, Mr. A. C. Fish, was a member of the Fish Brothers Wagon Company, widely known as extensive purchasers of hardwood lumber. In 1890 Mr. Frank F. Fish began business as the Western representative of the Ealy Mercantile Agency, devoted to the agricultural implement, wagon and carriage industry and similar lines. This brought him into touch with lumber buyers in many parts of the United States. In 1899 he organized the Foster Lumber Mercantile Agency, of which he was president and general manager. This company was continued until 1903, when it was sold to other parties. In June, 1905, Mr. Fish was appointed secretary of the National Hardwood Lumber Association, and three years later the office of treasurer was combined with that of secretary.

The secretary of the National Hardwood Lumber Association, in a letter to the Canada Lumberman, discusses their move into Canada as follows:—

"In placing the licensed and bonded official inspectors at To-

ronto and inviting the co-operation of Canadian hardwood manufacturers and dealers, the National Hardwood Lumber Association offers a practical solution of the problem of a uniform system of grading hardwoods. This association, now in its 16th year, has the support of over 800 members, and the Secretary-Treasurer, Mr. Frank F. Fish, who recently spent two weeks in Toronto, and secured a number of members, is of the opinion that the introduction of the same system and establishing of the same benefits in Canada that are so successful in the United States, will bring the same satisfactory results. Canadian members will be represented on the Board of Directors and also on the Inspection Rules Committee of the association, and in short, will be admitted as full fledged members and participate in all the benefits resulting from sixteen years of persistent effort.

"Ninety-five per cent. of hardwood lumber graded under any official standard is inspected under the rules of the National Hardwood Lumber Association and the inspection bureau officially measured and inspected 15,909,500 feet during July. They now maintain a force of sixty inspectors.

"Mr. Fish states that the association is prepared to engage as many inspector in Canada as may be found necessary to provide prompt and efficient service to its Canadian members and is much pleased at the cordial manner in which the plan has been received.

"A guaranteed inspection should be welcomed by both buyers and sellers throughout Canada. The establishment of this service gives promise of a removal of the chaotic and unsatisfactory conditions that have obtained in the past, due to the absence of an established and uniform system of hardwood inspection.

Lumbering Methods In Quebec Province

Operations of the River Ouelle Pulp and Lumber Company at St. Pacome, Que.—Logging and Manufacturing Processes Adopted

W. Gerard Power, Managing Director

SOME 75 miles east of the city of Quebec on the southern shore of the St. Lawrence River a traveller on the Intercolonial Railway will come to the picturesque village of St. Pacome, one of those delightful French-Canadian settlements where the habitant and the lumberjack have been living peacefully for generations past and where one finds much of the atmosphere of the old regime still preserved by the descendants of the early settlers. The River Ouelle flows through the Village of St. Pacome on its way to the St. Lawrence, and during the summer time are borne upon its stream vast quantities of spruce and cedar logs which have been cut in the timber limits further up the river, by the River Ouelle Pulp & Lumber Company.

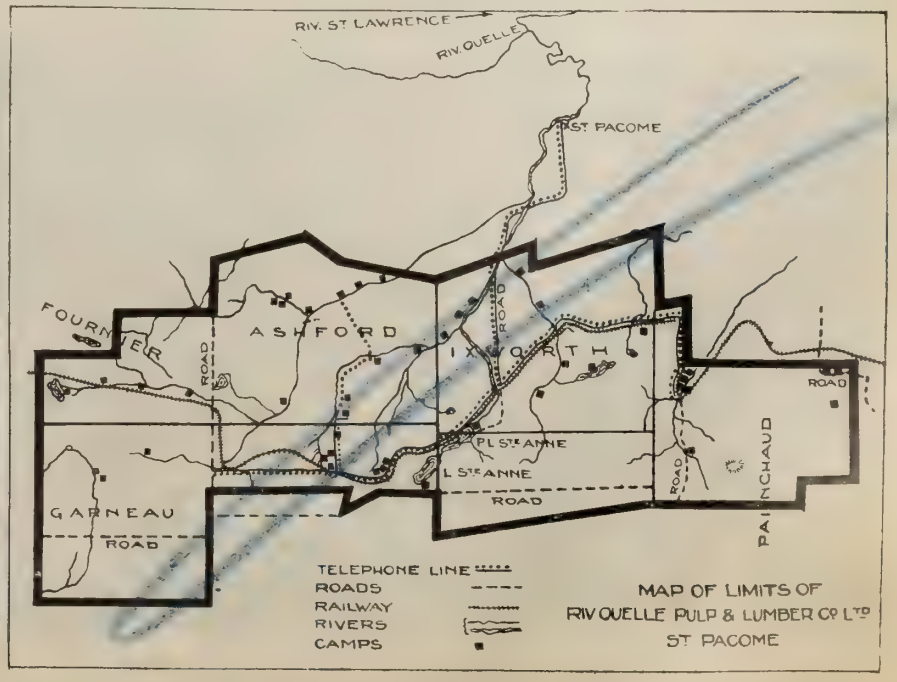
The Offices and principal mills of the River Ouelle Pulp & Lumber Company are located at St. Pacome. Sawmilling at this point commenced about one hundred years ago, although operations were only commenced upon an extensive scale about fifty years ago, by a Mr. MacDonald, who drove his logs upon the River Ouelle and stocked them for a brief time, after which he sold out to Mr. Charles King. Mr. King erected a water mill with an upright slabber and straight line gang. In those days nothing but pine was cut. A day's operations, involving the work of four shifts, which lasted for six hours each, resulted in the cutting of about 30,000 feet. Mr. King subsequently formed the company known as King Bros., which was followed some time afterwards by King Bros. Limited. The firm continued operating until 1903, when the River Ouelle Company bought them out. King Bros., Limited, operated two mills; the one referred to above and a second which they erected later. The latter mill was a circular with an edger and trimmer. The River Ouelle Pulp & Lumber Company, when they came into possession of the mills, worked them for one year, and in 1904 erected the present mill, which is shown in one of the accompanying illustrations.

The chief mill of the River Ouelle Pulp & Lumber Company, located at St. Pacome, is equipped with a complete outfit of sawmill machinery furnished by the Waterous Engine Works Co., of Brantford, Canada. The outfit consists of a double cutting band mill, a live gang, trimmers, edgers, and a lath mill and boiler combined, also four machines for barking pulpwood. The annual output of the mill consists of about 12,000,000 feet of spruce lumber, 3,000,000 lath and 5,000 cords of rossed pulpwood. A large portion of the product in lumber and lath finds a market in New York and the New England States. All the pulpwood is sold in New York.

Urbain Bard, Grand Foreman

The live gang referred to above is a most interesting machine. It takes a log without any slabbing, having a planer head attachment for making a flat surface on the under side of the log by means of which it is steadied in passing through the gang saws. This makes it possible to operate the gang upon live logs. The gang carries saws 26-in. long, 7-in. wide and 14 gauge. Usually it is equipped with from

St. Pacome Mill of River Ouelle Pulp & Lumber Co., Limited



Double Cutting Band—River Ouelle Pulp & Lumber Co.

Interior View—River Ouelle Pulp & Lumber Co.

eight to ten saws and it will take logs up to about 11-in. at the butt end. The double cutting band saw is 43 feet 8 inches long and 11 inches wide. The mill is equipped with gunshot steam feed carriage.

The company operate the band mill night and day and it turns out from 85,000 to 90,000 feet daily. The gang saw is only operated in the day time and produces about 20,000 feet of lumber. The barkers take care of from 25 to 30 cords of pulpwood per day. The lumber output of the mill is entirely in 1-in., 1½-in. and 1¾-in. stock, principally 13 feet long and from 4 to 10 in. in width. These are the sizes that are especially wanted in the markets of the Eastern States. The mill at St. Pacome furnishes employment for about eighty men. Another twenty men are employed in sorting, piling, etc., while ten men more are engaged in shipping, and altogether there are from 120 to 130 men employed in the mill and yards. The company attend only to the sawing, edging and trimming of the lumber. After the product passes the trimmer saws the work is all done by contract.

The River Ouelle Pulp & Lumber Company have excellent yarding capacity for their lumber. The average haul to the yard is 1,600 feet from the mill. This involves additional expense for hauling, but makes the property particularly attractive from the insurance point of view. Special attention was paid by the company in erecting the mill to having it conform as closely as possible to the underwriters' specifications, patent fire extinguishers, hose and barrels being installed on each floor.

The Pulp Wood Operations

The handling of pulpwood logs is a distinct feature of the operations. A separate jack ladder is provided for taking the pulpwood logs into the mill. They are then cut into 2-ft. lengths, barked by the rossing machines and carried outside by an overhead conveyor, which has a storage capacity of from 2,500 to 3,000 cords. Another conveyor is used for hauling the 4-ft. peeled wood. This is furnished by the farmers who do the peeling themselves during the months of May, June, July and August. This class of pulpwood is purchased from the farmers at a fixed price per cord on the bank of the river.

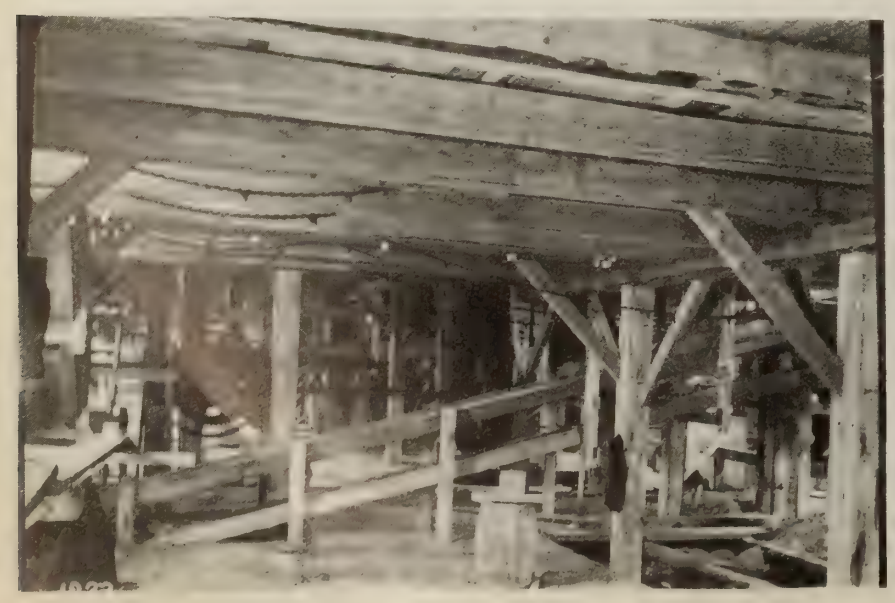
In addition to the mill above described the company found it necessary to erect a second mill to cut the logs coming from a certain section of their limits which are located on the headwaters of the River Du Loup, the logs from which cannot be driven to the main mill at St. Pacome. This mill is equipped with a circular saw and has a capacity of from 35,000 to 40,000 feet per day. It is located at Powerville, quite close to the line of the new National Transcontinental Railway.

The company also have a mill with a capacity of 25,000 feet per day located upon the waters of the River Du Loup in the first range of the Township of Painchaud. These two mills on the River Du Loup are operated only in the winter time. When the Transcontinental Railway is completed they will be operated all the year round and shipments will be made via this railway. At present the lumber is hauled a distance of 12 to 16 miles to two points on the Intercolonial Railway.

The company will construct another mill on the River Du Loup as soon as the National Transcontinental Railway is completed, and still another mill will be constructed at the discharge of Lake St. Anne. This mill will operate upon timber secured from some of the company's Crown land limits. The company will then have five mills operating in various parts of their limits.

Logging Methods and Conditions

Most of the logs upon which the River Ouelle Pulp & Lumber Company's mill at St. Pacome operate are taken out by contract. The company only operate one camp themselves. The logging operations as a rule commence during the month of October and are completed about March 20th. The timber upon their limits is excellently situated from the logging point of view. The average haul is only about one mile and the drives vary from 25 to 55 miles. Most of the streams are very rapid and the company have erected 12 dams on them as well as a large reservoir dam on the discharge of the smaller Lake St. Anne. These improvements have greatly facilitated the driving of the various streams. Upon the River Ouelle there are a number of falls, one of which is forty feet high and another fifteen feet high. One section of the river, known as the "Gorge," has five falls, with a total drop of 50 feet. At the foot of each of the falls the



A Spacious Ground Floor—River Ouelle Plant

A Few of the Logs—River Ouelle Pulp & Lumber Co.

company have cleaned out the rocks so as to prevent the logs from being broken up.

On account of the swiftness of the waters the logs are sometimes piled up in large jams reaching as high as 10 or 15 feet above the level of the water and extending a long distance up the river. At the foot of these jams the logs have to be worked off one by one and floated off down to the log pond.

An instance of the difficulties which are sometimes met with on account of these large jams is afforded by an incident which occurred during the year 1903 at a place known as College Falls. In the spring of that year a jam occurred above the falls which contained over 100,000 logs. The river was fairly low at the time and all the logs below the falls were cleared. The men then set to work upon the brow of the falls, across which the logs were jammed. They operated with a hand dog, consisting of two ropes with a dog and ring. By this means they hoped to loosen the logs at the brow of the hill and start the great jam moving. It was necessary for one of the men to undertake the dangerous task of fastening the dog upon what was considered to be the key log. This was located about the centre of the brow of the falls and while the man was at work the great mass commenced to move and thundered over the falls, the man disappearing beneath. Everyone in the crew imagined that their companion would be ground to pieces immediately, but through some miraculous interference he was sheltered from fatal injury by the logs forming an arch above him.

Four of the members of the crew secured a boat at the bottom of the falls and rowed out into the whirlpool to the base of the new

Pulpwood and Conveyor—River Ouelle Pulp & Lumber Co.

jam which had formed by the logs coming over the falls. They took their lives in their hands, for at any moment the rest of the 100,000 logs above the falls might be expected to follow and carry death to all in their path. Lumberjacks, however, are accustomed to danger of this sort and it was only a short time before the four men in the boat discovered the hand of their companion sticking out from between the logs. They found that he was alive and comparatively uninjured and they set to work to extricate him. This, too, was an extremely dangerous business. With the skill which is innate among lumberjacks, they pried and pulled at the logs until they had secured sufficient space to permit of his head and arm being drawn through. Then it was a case of practically pulling him to safety by sheer force, running the double risk of loosening the logs and also of injuring the imprisoned man by the severity of the strain. To make a long story short, they finally succeeded in extricating their companion and bringing him safely to shore, after which, nothing daunted, they renewed the task of loosening the jam at which they were finally successful.

Telephones Used for Logging

One of the most interesting features in connection with the River Ouelle Pulp & Lumber Company's operations is the fact that they have established throughout their limits a telephone system by means of which they can communicate with men in various parts of the limits. The company now have a total of seventy odd miles of telephone line, of which they constructed fifty at first, suspending the line upon the trunks of trees. The last twenty miles have been constructed upon what is known as the trolley system, that is to say, the line is suspended from trees on either side, so that if any of the trees should fall, it will drop to the ground instead of being broken. By means of its telephone system the company is able to communicate with men at work upon the rivers and can therefore regulate the hours of opening and closing the dams and give instructions to the foreman on the drive, without wasting the time which was formerly necessary to cover the distance by a messenger. One of the most important uses of the telephone line, however, is in connection with the prevention of forest fires. By its means it is possible to report fires during their early stages and a force of men can be despatched immediately to the scene. It seldom happens that a blaze secures sufficient foothold to make it at all dangerous.

Some Interesting Cost Data

The River Ouelle Pulp & Paper Company devote a great deal of attention to systematic preparation of cost accounts in connection with all their operations. An interesting example of the valuable information thus tabulated is afforded by the following table, showing the cost of feeding men and horses in one of the company's camps, at which about fifty men were employed.

	Cost per meal per man	Per day	Per mon.	Per meal per horse	Per day	Per mon
	$	$	$	$	$	$
1908-09	0.1075	0.322	9.66	0.1984	0.595	17.85
1909-10	0.1083	0.3249	9.74	0.2162	0.648	19.45
1910-11	0.1084	0.325	9.75	0.16	0.48	14.40

(During 1908-9 and 1909-10 the barn boss's wages are included in the above table of the cost per horse).

The cost of food for men in the above table includes the cook's wages and the wages of chore boy.

In addition to the above costs the company charge each camp $9 per month per horse by way of rental for their services.

Another interesting table shows the average wage, together with the cost of board per man at the above camp. These are as follows:

	Average wage per day	With board	Wage per month	With board
	$	$	$	$
1909-10	.8840	1.2089	22.984	32.72
1910-11	.9186	1.243	23.883	33.633

The cost of boarding the men when worked out and apportioned to each 1,000 feet of lumber according to log measure during 1909 and 1910 was $1.113 and during 1910-11 it was $1.26. Similarly the cost of the horses when apportioned against 1,000 feet of lumber by log measure was during 1909-10 .742c and during 1910-11 .512c.

The cost of the logs per M. log feet on the yards during 1909-10 was $3.28 and the hauling cost was $2.139, making a total operating cost of $5.42. During 1910-11 the cost on the yards was $2.93 per M. log feet and the hauling cost $1.603, making a total cost of $4.53 per M. log feet. These figures do not include stumpage.

The directors of the River Ouelle Pulp & Lumber Company include Hon. John Sharples, Quebec, P.Q., president; William Power, M.P., Quebec, P.Q., vice-president; R. Harcourt Smith, Quebec, P.Q., treasurer, and W. Gerard Power, St. Pacome, P.Q., managing director.

Urbain Bard—Grand Foreman

Urbain Bard, the Grand Foremen of the River Ouelle Pulp and Lumber Company, whose portrait is published at the head of this article, is a man who knows his work from the ground up. He was born at St. Pacome, Que., about 59 years ago. One might mistake him for a natural born French Canadian, so fluently does he speak the French language, but he comes of English stock. His great grandfather came to Canada from England, in the person of one John Barr, which name, taking a French pronounciation, was finally spelled as it was pronounced, and the final "r" was changed to a "d."

Urbain Bard, during the earlier days of his career, worked for a short time in the vicinity of Lake Champlain, afterwards returning to Quebec when the white pine lumber business was booming there, and worked for several seasons on the wharves at Point a Pizeau, as a deal-carrier.

Born on the outskirts of the spruce forest, the hustle and bustle of a thickly populated centre had no attraction for him, and he returned to the old homestead. Shortly afterwards he accepted a position as foreman in the lumber camps of Messrs. King Bros., at Grand Pabos, Gaspe Co., which position he held until the River Ouelle Pulp & Lumber Company bought the River Ouelle limit from Messrs. King Bros., twenty years later, when he returned to his native parish, and accepted a position as superintendent of lumbering operations, which position he still holds.

It will be seen from this brief sketch of his career that Urbain Bard was practically born and brought up in the woods, and is as much at home in the heart of the forest as the deer.

Hardware jobbers through eastern and central Canada are sending to their trade a little folder illustrating and describing Simonds Crescent Ground Cross-Cut Saws. Special attention is called to the mechanical advantages of using the Crescent Ground Saw and to the saving in time and labor which the use of this saw gives. There is also a suggestion regarding Simonds Hand Saws and the Simonds Special Cross-Cut Saw File. This file is one which has been developed for the particular purpose of filing cross-cut saws. The folders are issued by the Simonds Canada Saw Company, Limited, of Montreal and St. John.

Fallers at Work, Showing Springboards

Barker at Work on Fir Log

Typical Small B. C. Logging Operation

Description of the Methods Employed in Taking Out Logs in a Camp of Twenty Men—Costs of the Work

By G. H. Prince

Logging operations in British Columbia are a very different proposition from those in eastern Canada. The great size of many of the trees, the different climatic conditions and the employment of Hindu, Chinese and Japanese laborers all combine to make the logging business an entirely new experience for anyone who enters it after being accustomed to the conditions in other parts of Canada. Readers of the Canada Lumberman are already fairly familiar with the principal points of difference, but will be interested nevertheless in the following description which was written by Mr. G. H. Prince, a member of the class of 1912 in the New Brunswick school of forestry. Mr. Prince had the good fortune to visit and study the operations of the Timberland Lumber Co., Ltd., whose head office is at New Westminster, B.C. The site of the logging operations, which he describes, was at Craig's siding, about twelve miles from Vancouver on the line of the British Columbia Electric Railway to Chilliwack. The land which was being operated was fairly level and not more than one hundred feet above the sea. In spots it was very swampy, the water was boggy and highly colored and quite unfit for drinking, although suitable for using in the engines. The Timberland Lumber Co. was under contract with the British Columbia Electric Railway Co. to clear entirely, for a distance of two hundred feet on each side of the track, several miles of railway. The object of the clearing was to prevent wind-falls from breaking the wires as these breaks were very costly to the company, the loss often amounting to $1,000 in time for repairs, burnt out fuses, etc.

This section of the country had never been logged over before, but forest fires had swept over it about one hundred and sixty years ago, remains of the old stumps and scars on some of the oldest trees bearing unquestionable evidence of this fact. The average age of the trees upon these limits was from one hundred and fifty to one hundred and sixty years. About 70 per cent. of the timber was red fir; 10 per cent. Western red cedar; 10 per cent. Sitka spruce; 5 per cent. western white pine and 5 per cent. western hemlock. The average production of the land was about 45,000 feet b.m. per acre, and the trees averaged up to 60 in. in diameter, breast high, and contained an average of two hundred feet of merchantable length. The fire protection upon the property was attended to by the Dominion Government fire ranger, who visited the region and traversed its length once a week. In case of fire he was empowered to employ the necessary number of men to extinguish the flames.

The nature of the stand of timber was such that nearly all of the trees were larger and suitable for saw timber and for ties. The

Butt of Red Fir, Dressing 5,080 Feet B. M,

Same Log Being Cut in Mill

greater part of the timber was sound and straight with a very small amount of taper. Resin pockets and a few heart shakes and ring shakes were occasionally noticed, but in general the timber was not over-mature. The length of the unmerchantable top varied from fifty to one hundred feet and in some cases the presence of large limbs rendered tops of 15 in. diameter unfit for saw timber.

The climatic conditions were such that the best time for logging was in the summer, during the dry season. Winter operations differ very slightly from those of the summer in that part of Canada, there being hardly an inch of snow during the winter months. For this reason logging operations in the winter are far more uncomfortable and are more frequently interrupted by the long continued rains. Upon occasions the work might be held up in this manner for a period of two weeks. The level nature of the ground, the short haul and the medium size of the timber made it possible to use horses instead of the more common donkey engine and cable system. The donkey engine and cable however are used all over the mountain region of British Columbia with great success. In a few cases railway logging has taken its place.

The bringing in of supplies to the camp was simplified by the presence of the British Columbia Electric Railway, freight being delivered regularly at the company's siding. Lumber from the company's mill was shipped by rail to Vancouver whence it was forwarded by rail to eastern Canada or exported by vessel.

The labor situation was more satisfactory than in many other parts of Canada, as labor was easily secured. Men are in the habit of changing from camp to camp every day and the vast numbers

Making Skidroad with Yarding Team

Yarding Team at Work on Sitka Spruce

of incoming laborers from foreign lands make it a simple matter to fill their places. Unskilled labor is entirely changed about every two months or oftener and consists largely of Hindus. Chinese laborers are also employed and are much steadier, being inclined to remain longer than the Hindus at one situation. In some cases, Chinamen showed remarkable ability and advanced to the important position of head filer, requiring exceptional skill and good judgment, which can only be secured by long experience. The majority of the Chinamen however, are employed as cooks. The Japanese are found to be a fairly steady class of laborers and are frequently employed around the machinery, being more careful than Chinamen or Hindus. The logging crew was composed largely of Swedes who, as a rule are men of large physique and excellent endurance, being therefore peculiarly fitted for this class of work. The logging crews also included a large percentage of Canadians, but there were very few Englishmen to be found in employment of this nature.

The two camps consisted of dining hall, bunk house, office, several smaller houses used by the men for their families, also a small portable mill capable of cutting 35,000 feet per day, were built about one mile apart. This permitted the operations to be carried on at a distance of half a mile on each side of the camp. Each mill was supposed to finish its area in less than two years.

The Falling Operations

Cutting operations are started by the head faller, who with his assistant, under-cuts the trees on the side towards which they are desired to fall. The cut is made about six feet from the ground in order to escape the butt swell and its usual extra quantity of pitch, and also to render accurate falling possible or to simplify it. The trees are cut with a saw about fourteen feet long, the men standing on spring boards, made of some hard strong wood. These boards are about six feet long, one inch thick and six inches wide. At one end is attached a horse-shoe-shaped iron with the toe calk extending upwards somewhat like a hook. A V-shaped notch is cut into the tree at the correct distance from the ground and the board inserted with the hook on the upper side. The weight of the man keeps the board in place. The calk is circular in shape, allowing the board to be swung so that the chopper may cut the tree on either side.

The head faller decides the direction in which the tree is to fall and he and his assistant undercut it in that direction. The undercut is usually made about one foot deep, then the swing boards are swung around and the tree sawed down from the opposite side. Whenever the saw binds, wedges are driven into the saw-cut behind the saw, which serve also the purpose of starting the tree to fall in the right direction. After completing the falling of a tree the two fallers move along to the next tree which has been selected. They can in one day cut from ten to twelve trees of an average diameter of fifty inches.

After the Fall of the Tree

When the tree has been laid low, the barker commences his work, which consists of cutting off the limbs from all of the trunk which he thinks is merchantable. Following the barker, come two buckers whose business is to cut the tree into logs. This operation is performed with a one-handled cross-cut saw, the men working separately. To some lumbermen this proceeding would seem rather unwise, but it is the only method available in timber of this nature, as the trees are of such a size and fall so frequently in such a position, that cross-cutting by two men is impossible. A good position for one sawyer might be found on one side of the tree, while on the other side there might be a drop of ten feet.

When the cross-cutting has been completed the sniper takes charge. He sights along the log, notes its curve and the amount its pith is out of centre. Thus he is enabled to learn the position in which the log will rest when it is being hauled. From what will be the bottom side of the log, he removes the bark with an axe, then he snipes all the forward end of the logging; that is to say, cuts off the lower corner so as to give the log a curve somewhat similar to the end curve of the sled runner. This permits the log to glide readily over the skidways. Skidways are laid out by the head skidway man and built by him with the help of two assistants. The place for the road is levelled up with pick and shovel. Cross logs or skids are laid at intervals of five feet and the skids themselves are from twelve to fifteen inches in diameter and about eight feet long. They are sunk into the ground so that only the upper half appears. From the top of the skid the bark is removed so that the smooth side of the log will glide easily over it. Two men are employed as "greasers," who carry cans of crude oil and apply it with a dauber to the top of each skid before the passage of each load of logs. In swampy places, it is necessary to cover the space between the skids with sawn cedar planks so as to prevent the horses from sinking in the mire. Over every gully, hole or creek bottom, heavy bridges are erected to reduce the grade of the skid road. The preparation of these skid roads is carried out before any falling is done.

As soon as the sniper has finished his work, the two swampers cut up the limbs and clear them out of the road. Then comes the driver with his four horse loading team and at the same time the hooktender and two rigging slingers appear upon the scene. The

rigging consists of four or five wire ropes one inch in diameter and 30 feet long, having a hook in one end of a loop in the other end, one double turn and one single turn pulley, also several short pieces of wire cable. The cable is used to attach the pulleys to the stumps and to the logs. After the rigging has been arranged and properly attached, the yarding timber is hooked to the loose end of the cable and the log is thus pulled on to the skidway. The yarding team takes it forward to a suitable place at which it is taken up by the six-horse yarding team. The former team returns and pulls up another log which is attached to the rear end of the first log by a 4-foot chain and two dogs. In this way four or more logs are attached. Sometimes as many as six or seven logs are strung together in this manner to form what is known as a "turn" and are hauled to the mill by the six-horse, skid-road team. This team makes about ten trips a day to the mill which is less than half a mile away. On the return trip, the dogs, chains, grease cans, etc., are placed on the long narrow sled and hauled back by the team. The logs are cut in various lengths ranging from sixteen to forty feet and one "turn" will often contain in excess of 4,000 feet b.m.

Costs of the Operation

In connection with the operations above described, the company employed the following men, at the wages shown in the list:

1	Head faller	$5.25 per day
2	Second faller	$4.75 " "
1	Barker	$3.75 " "
1	Sniper	$3.75 " "
2	Swampers	$3.25 " "
1	Hook tender	$4.75 " "
.2	Rigging slingers	$3.25 " "
2	Greasers	$1.61 " "
2	Drivers	$3.04 " "
1	Woods foreman	$3.84 " "
1	Head skidway man	$4.00 " "
2	Skid road man	$3.00 " "
2	Buckers	$3.50 " "
10	Horses, shoes and feed, each	.33

This makes a total of 19 men and 10 horses at a total cost of $68.69 per day. The cost of each 1000 feet delivered to the mill was $1.96 in wages. The average cut per day was 35,000 feet. After the cutting the condition of the land was that of a complete clearing, with the brush scattered about.

The Passing of a Great Lumberman

Otis Staples, Wycliffe, B. C.

To lumbermen in many parts of Canada, the news of the tragic death of Mr. Otis Staples, one of the best known lumbermen of the East Kootenay district of British Columbia, came with apalling suddenness on August 9th. Less than a week previous to that date, Mr. Staples had set out, in the best of health, upon a fishing trip on St. Marys Lake. While casting with a fly, during a heavy wind, Mr. Staples unfortunately got the hook of one of his flies driven through the corner of one eye, whence the point and barb curved around and protruded through the pupil. In spite of the severe pain which he was suffering, Mr. Staples directed his boat man down the lake and drove his motor back to his home at Wycliffe, a distance of twenty miles. He was immediately given medical attention and taken to Spokane, Wash., for treatment by eminent ocular surgeons. From the very first it was seen that his eye could not be saved and it was also realized that far more serious danger was involved. In the end, meningitis developed and Mr. Staples passed away at 10 p.m. on Friday, August 9th.

By the death of Mr. Staples, the lumber industry in Canada has lost one of its most prominent members and a man whose example was an inspiration to all who knew him. Mr. Staples was born at Douglas Parish, York County, N.B., on October 27th, 1847. In 1869 he emigrated to the United States and settled in Stillwater, Minnesota, where he resided until eight years ago, when he moved to British Columbia and promoted the company which bears his name. In Stillwater, his activities were largely in the pine forests of St. Croix River. His skill and his indomitable spirit at once made him a leader among his associates. For years he operated on the St. Croix River, until the fast disappearing forests admonished him that he must seek other fields for his endeavors. He associated with several parties in Stillwater and became largely interested in the Johnson, Wentworth Company. He was a stockholder and director of the Northwest Thresher Company, a stockholder in the First National Bank of Stillwater, and had other and various interests in and near the city on the St. Croix at the time of his removal to Canada. How successful his work has been in East Kootenay is attested by the magnificent property he has there built, developed and maintained, where a few years ago was but a wilderness to-day is a thriving community. Comfortable homes, and broad acres covered with produce of the farm stretch away beyond the vision where recently was a barren waste. And all this was done in a few short years. But time was precious to him and he made the most of every moment of his active career.

Of the man himself, his character, his indomitable energy, his brave heart and his unfailing charity, much might be said. Firm and resolute, uncompromisingly honest in his dealings with his fellow men, he had a determination to accomplish, a skill that never failed him. He succeeded where more timid men fell by the wayside. Mr. Staples had unbounded faith in human nature; he loved his fellow men, and he loved to do all he could for them.

Preservation of Forest Wealth

By Wynyard C. Gladwin

The forest fire prevention clauses, of the new Forest Act, placed on the statutes at the last session of the Provincial Legislature, are of the greatest importance to the general welfare of the forest and wooded tracts of the province. They provide a solution for doing away with the several points that constitute the danger, offering a remedy which, when applied by a proper system, cannot but result in a successful conclusion.

First comes the composition of the staff under the Minister of Lands, which carries into effect the meaning of the act. At the head of the different branches of the Forest Branch is a chief forester with an assistant who has the supervision of the field operations, with the fire patrol force directly under his supervision. The province is divided into sections in charge of supervisors, the section divided into divisions, which are again divided into districts, the division being in charge of divisional men and the districts patrolled by dstrict men.

One of the most important provisions of the act is contained in the clause which provides for the disposal of debris left from logging operations, or along the right-of-way, pole lines, and around mines, camps, mills, etc. Such debris can, by section 123 of the act, be declared a public nuisance by the Minister or Forest Board and must be disposed of by persons or companies creating it.

Second.—Railways must patrol their right-of-way in a satisfactory manner, to prevent the spread of fire that might be caused by their locomotives and must keep the right-of-way clear of inflammable matter.

Third.—Settlers clearing land must obtain a permit to start a fire between the 1st of May and the first day of October of each year, and are responsible for preventing the fire from spreading off their premises.

Fourth.—Male persons between the ages of 18 and 60, excepting trainmen, telegraphers and dispatchers on duty, doctors and persons physically unfit, can be called on to help extinguish a fire by any official appointed by the Lieutenant-Governor-in-Council to enforce the act. The penalty for violation of act is not less than $50 and not more than $300, in addition to costs.

As the province becomes settled and its industries increase in number, the danger from fires are becoming more and more pronounced. The province possesses a stand of timber magnificent in its quantity and quality, supplying work directly to from twenty to twenty-five thousand men, and bringing into the province twenty-five millions of dollars annually from the production of lumber, and adding to the revenues of the government two million six hundred thousand dollars from royalties and rentals. With these facts before us we can say that the best laws and regulations that can possibly be conceived, and the best system and organization that can be provided, is none too good.

Many destructive fires in the past have been caused by extreme carelessness on the part of the operator in not providing proper equipment and safeguards, or watchmen, to prevent a fire from starting and getting beyond control. By neglecting these precautions parties thought they were saving a few dollars but in the end risked being ruined by the loss, and causing large timber areas to be destroyed. Settlers in a deliberate manner, for the sake of clearing a little patch of land, would allow their fires to spread to the adjoining timber and think nothing of the loss which followed. Railway companies cared nothing about their locomotives scattering fire broadcast and destroying thousands of acres of wooded lands on the mountain side. Campers in the woods and prospectors after mineral did not appreciate the greatest of all crops that the earth can yield —the forest—and destruction too often marked their wandering trails.

Well it is for the nation at large that a new era has dawned for the preservation and conservation of the great public asset. May the people soon become guardians as well as the officials who may be designated by the government to carry out the laws in this respect.

The Prairie Lumber Trade During 1912

Great Alterations which Have Taken Place During the Present Year —The Manufacturing Retailer—Rapid Growth of Retail Trade

The lumber industry of western Canada is one of rapid changes, of new conditions and of an ever widening field. The arising, year by year, of new conditions make necessary the putting into effect of new provisions to cope with them. It seems remarkable to reflect to-day that the lumber business of western Canada was merely a matter of local interest twenty-five years ago, and that the great fabric of the retail business of the prairie provinces has been entirely built up during that period.

Rapid as the changes have been during the past quarter of a century, there is every indication that these changes and events will fade into insignificance when compared with those which will materialize during the next period of the same length.

Even the past year has seen many events of an important bearing develop in the lumber business of the west. One of the most important of these has been the determined fight for and against the tariff restriction on lumber imported from the United States. There is no question but that the situation thus far has developed entirely as the greater restrictions on the import of lumber and the scope given the importers of these lines, has grown also. Should the Supreme Court uphold the decision of the Exchequer Court, making lumber dressed on one side and jointed on the edge dutiable, the situation will be a most interesting one. It would seem as if it would be quite possible to interpret such a finding to the end that all lumber must pay duty except that which is rough or rough and surfaced on one side only. Needless to say, it will not absolutely stop the importation of lumber from the United States mills, but it will prove a great obstacle in the way of carrying on the traffic, and will prevent much business which now is being freely carried on.

Importance of the Grain Carrying Facilities

One of the great elements in the future of the lumber trade of the prairies is the provision of more and greater facilities for the carrying of the grain. Two of the greatest elements in this situation are the Panama Canal and the Hudsons Bay Railroad. The eastern mind cannot readily grasp the importance of the conditions connected with the crop situation to the lumber business and those connected with it. A heavy and good crop and a successful harvest is the keynote of the prosperity of the lumber dealer. With a good crop harvested and turned into money, the prairie farmers are able to pay their bills, the retail dealer is able to square up his accounts and to square himself with the wholesale dealer, who in turn settles his account with the mills. The interest of the whole lumber trade in the crop situation may thus be readily gauged and understood.

One of the best illustrations of this condition was the car shortage of the fall of 1911. The crops on this occasion owing to frequent and continued rains, were about three weeks later than usual. When harvesting was over, the grain was poured into the railroads in such tremendous quantities and with such great suddenness that it could not be handled and immense quantities were left in the stook and in the elevators throughout the winter. The farmers were unable to settle their accounts. The retail dealers were in a similar position and the whole lumber business suffered from this cause for six long months. Practically all the retail dealers were obliged to adopt the policy of greatly curtailing their credits and restricting sales to the best accounts or to those who had the cash. The effect of this has not entirely passed away in the country districts, nor will it do so until the present harvest is assured, or reasonably so. The importance of the crops and the returns therefrom to the lumber dealer of the prairies, and to the mills (whom he in reality represents) may be judged from these circumstances.

The Panama Canal and Its Effect

That the lumbermen of the prairies will be deeply interested in the facilities for moving the crops follows as naturally as night follows day. As has been already stated, the facilities for transportation already planned will make a vast difference in all lines of business on the prairies, and particularly to the lumbermen. The Panama Canal will go far towards relieving the annual congestion of grain. It is claimed that most of Alberta's grain output will be shipped via Panama and in case of a car shortage Saskatchewan's crops may be sent to the market through the same channel. Another effect of the Panama Canal will be the providing of a market on the Atlantic coast for the lumber manufacturers of British Columbia, which will naturally have an important effect upon the lumber trade of the prairies, but in this case on the buying end, not on either the selling or shipping end.

Another element in the problem of transportation will be the opening of the Hudson's Bay Railroad, which will fill its place in acting as a preventative of a car shortage. Through these two great mediums the business world of the prairies will be placed upon a much better footing as regards transportation, and the lumber trade is looking forward eagerly to the time when the shortage of cars and the inability to move the crops will no longer be a menace to business and a contingency always to be dreaded.

Manufacturers Opening Retail Yards

Another feature of the prairie lumber trade which has taken on a growing importance during the past few years is the policy being followed by a number of the largest manufacturers who open yards on the prairies, shipping direct from the mills to their own yards and disposing of their lumber to a very great extent through this channel. This procedure is not confined entirely to the British Columbia mills. At least one of the Saskatchewan lumber manufacturers and one large Ontario concern have opened a number of yards. The statement has been made that eventually the wholesaler of lumber will be eliminated from the prairie business, and that the manufacturers will handle the lumber from the stump to the yards. It must be acknowledged that the present trend of events has a tendency even to go still farther and to eliminate all who come between the manufacturer and the consumer, including the wholesaler and the retailer. There is no doubt that this method of selling lumber has many advantages to the manufacturer who is able to secure all the profits with no greater expense than is incurred if the lumber is sold through the wholesaler and the retailer.

There are, however, a number of tangible reasons why the policy of the manufacturers owning yards does not look so attractive after a closer examination. In the first place, the lumber manufacturing business is one of great risks as carried on in western Canada in general, and in British Columbia in particular. Great sums are involved and, in many cases, lie dormant in standing timber for years. What with the wages paid for the getting out of the logs and the manufacture of the lumber, the paying of stumpage, the buying of mill supplies and the disbursements made in many other directions, the outlay of a lumber manufacturer is heavy. When it is considered that all these disbursements must be made several months before any return can be had from the lumber in connection with which they are made, it will be readily seen that vast outlays must be necessary before even the first returns are received. In the event of any financial depression or panic and sudden cessation of business, the lumber manufacturer may find himself in great straits for money. There is no doubt that in such a case it would be far better for him to have upon his books the accounts of retailers and wholesalers of standing rather than to have the individual consumers to obtain returns from, which latter must necessarily be a slow and tedious process. It must be seen that if the policy of a combined manufacturing and retail business brings all the profits, it brings risks as well, and there is no doubt that the firm or individual confining operations to the manufacture of lumber and selling through the usual channels, is eliminating many risks, which the manufacturer-retailer is obliged to carry.

Nevertheless manufacturers of lumber in western Canada are taking a more and more prominent part in the retail business of the prairies, and during the past year several large retail projects have been launched with manufacturers behind them.

Another feature of the lumber trade of the past two or three years has been the increase in scope of the yards owned by the line-yard concerns. From their headquarters in the cities these firms distribute large quantities of lumber through the medium of their yards at different points along the railroad lines. The yards owned by these concerns range in number from five to seventy-five each.

It is recognized that the individual dealer or independent dealer is losing importance gradually in comparison with the greater and greater volume of lumber sold on the prairies. There are those who claim that the time of the independent retail dealer will soon be past, and that the entire retail business of the prairies will be handled by the line-yard concerns, a number of which are affiliated with the manufacturers as stated above.

While it must be acknowledged that present events indicate a tendency to eliminate to some extent both the wholesaler and the independent dealer, there is no immediate prospect that these two important mediums will be things of the past for many years to come. Both are necessary elements in any business, and both will

continue to exist in the prairie lumber trade as long as there are opportunities for energetic and able men. The need will also exist. There will always be mills which do not care to extend their operations beyond simply manufacturing lumber, and there will also be opportunities for the individual retail dealer to ply his trade and to get his share of the business.

Wonderful Trade Extension

Spectacular, almost unbelievable, is the manner in which the retail lumber trade is breaking into new ground and spreading over new territory. The immense volume of railroad building which has taken place during the past few years, and during 1912 in particular, has opened vast stretches of new country which provide many points with possibilities for the retail lumbermen, who are not slow to take advantage of these opportunities. Most of the large line-yard concerns follow a most aggressive policy in the occupying of new territory. It frequently happens that yards are established at many points before they have been given a name, and when they are merely known by the mileage number indicating their location. Rapid though the increase is in the territory, competition in retail circles seems no less keen, and many towns suffer from a surplus of lumber yards before the population may be numbered in hundreds.

A feature which has been most noticeable during the past two or three years in the prairie lumber trade may be found in the great improvement noticeable in the individual facilities for carrying on business. Indications of this may be found in the type of buildings being built by retail lumber dealers in place of a carelessly erected building of no particular style which were common a decade ago. The common procedure now-a-days is to have an architect prepare plans for office buildings and sheds and to have the whole yards laid out with some pretence to scientific town-planning. Cases of this are noticed frequently even in the smallest towns on the prairies, and it must be said that these establishments are a vast improvement in every way over the old style of yards. In office systems, in advertising, and in other methods of carrying on business, a like procedure is very apparent.

Lumbering Operations at Lumsden's Mills

Story of the Growth and Success of a Great Enterprise in Northern Ontario—Equipment and Methods of Most Modern Type

MANY towns and villages in Canada owe their existence to the lumber industry, which forms so large a part of the country's industrial life. This is noticeably the case in the northern parts of Ontario and Quebec. Such a village is Lumsden's Mills, situated in the township of Gendreau, in the Province of Quebec, and founded by the late Alexander Lumsden, M.P. for Ottawa, who in 1887 started a large saw milling industry there. The business has been carried on successfully since 1904 by his son, Mr. John Lumsden, the well-known lumber merchant, of Ottawa, Ont.

The success of a sawmill depends in large measure on its relative location to its limits, and also upon the access which its finished products have to the different buying centres of the country. Lumsden's Mills has a location which, from a milling standpoint is unexcelled. The Lumsden limits, consisting of large areas of red and white pine and spruce, are situated along the shore of Lake Kipawa. The fleet of steamers owned by Mr. Lumsden carry men and supplies to the camps on the edge of the lake. The drives are very easy and under favorable conditions delivery of logs from the bush to the mill is made in six days.

General View of Plant and Offices—Lumsden's Mills.

The saw and planing mills are situated at Lumsden's Mills on what is known as Gordon Creek, a tributary of the Ottawa River, at the southern outlet of Kipawa Lake. It is reached by a branch line of the Canadian Pacific Railway running from Mattawa to Temiskaming and Kipawa.

Lumsden's Mills, a village of from 300 to 400 inhabitants, is owned entirely by Mr. Lumsden. Besides the saw and planing mills, head offices and large general store, the village boasts of a church, school, many good substantial homes, a large bakery and a lumber boat works. The town is lighted by electricity, generated by water power at the mill.

The sawmill was built by the late Alexander Lumsden in 1887. In August, 1904, at his death, and when taken over by his son, it was rebuilt and enlarged and fitted with the latest improved machinery. The mill, as it now stands, contains a Kendall Gang and resaw and a circular saw, as well as a lath and picket mill. The gang includes thirteen saws cutting from one inch up to three inches in thickness. It will cut cants up to thirteen inches and is especially adapted for the manufacture of lumber from small logs. Among the smaller machines in the mill are the slab resaw, one five saw edger and slash saws. The average daily capacity of the mill is 90,000 feet and the lath and picket mills make an average of 25,000 laths and 15,000 pickets per day.

Scene in the Shipping Yards—Lumsden's Mills.

The mill is driven by water power secured from Gordon Creek, on which it is built, 360 h.p. being generated in the building. A smaller power house alongside, of 120 h.p., supplies the light for the town.

The lumber is transferred from the mill to the sorting table by an endless chain system and distributed by wagons to the three yards located along the river banks for three-quarters of a mile. Private switches are installed throughout the yards and all shipments are made by rail over the Canadian Pacific Railway. The refuse from

Office of Lumsden's Mills.

the mill is conveyed through a water chute to a point nearly a mile down the river, which eliminates the danger of fire. An up-to-date planing mill in connection with the sawmill takes care of all the dressed stock. In connection with the mill is also to be found a well laid out machine shop, fully equipped with a large planer, three lathes, two drill presses, bolt machine and wood lathe, all made by Bertrams, of Dundas.

In connection with the mill operations one could not help noting the modern methods employed in the manufacture of lumber, and, as a result, the splendid class of lumber lying piled in the different yards. Only the best machinery, the best workmen and the most up-to-date systems are employed, with the results that buyers of red and white pine and spruce from Lumsden's Mills realize that they have a line of lumber that in quality and manufacture can be thoroughly relied upon. Mr. W. H. Cowper, the manager of the mills and woods operations, is a thoroughly experienced lumberman of long standing. He has been in the employ of the firm for over twenty-six years, and for the past eight years, Mr. Lumsden's manager. A line of steamboats are maintained by Mr. Lumsden on Kipawa Lake for passenger, freight and towing purposes. These are the "R. Hurdman," "Emma Mac," "Quebec," "Otter" and two other smaller yachts.

At Lumsden's Mills is also located a large boat works manufacturing "Pointers" and Winch boats for lumbermen. With an experience of over twenty-five consecutive years in the "driving" and "sweeping" of logs down the Gatineau River to the Ottawa and from the head of the Quinze River through to the Des Joachim and from Kipawa Lake to the same point and in a general lumbering business in the Temiskaming and Kipawa Lakes country, pressing need was early felt by the late Mr. Alex. Lumsden for the best lumberman's boat that could be built. To fill that want he, being a prescient and practical man, secured good workmen, started a boat works and had his boats built after his own ideas and design. For his extensive operations Mr. John Lumsden decided to enlarge the scope of the boat works and manufacture for the markets. Great success has been attained in this and the Lumsden Boat is now being used by many of the largest lumbering firms in the country.

Mr. Lumsden is connected with a number of other successful companies and is president of the Lumsden Mining Company, Cobalt, Ont., head office, Ottawa, Ont.; the Dominion Explosives Limited, head office, Ottawa, Ont., and the Electrical Company of Canada, Limited, head office, Toronto, Ont.

Plenty of Lumber and Power—Lumsden's Mills.

A Lumberman's Motor Truck

A practical solution of the problem of handling lumber and reducing handling cost has been secured by many lumbermen in Canada by the use of motor trucks in the yards. Those who have experimented along this line claim that horses cannot compete with these trucks. One of the firms who are catering to the lumber trade along this line is the Schacht Motor Car Company of Canada, Limited, Hamilton, Ont. This company is turning out a line of trucks specially adapted and designed for heavy duty service. The trucks are built in sizes of 1-ton, 2-ton, 3-ton, 4-ton and 6-ton normal capacity.

The Schacht truck shown in one of the accompanying illustrations is a two-ton truck used by the Dominion Power & Transmission Company of Hamilton, Ont., for hauling towers forty-five feet long, by use of a two-wheel trailer. Each tower weighs fifteen hundred pounds and four are hauled at a load. The engine is en-bloc type and develops 45 h.p. The axles are drop forged. The frame is rolled steel channel. There is ten feet of loading space back of seat. The wheels carry tires 36 x 3½ in. front, and 36 x 3½ dual in rear. The wheel base is 132 inches and the maximum speed is sixteen miles per hour on direct.

Schacht Truck for the Dominion Power & Transmission Co.

Schacht Truck for Delivery of Cases of Bottles.

The second illustration shows a Schacht truck used by the Cocoa Cola Company for hauling cases of bottles to be distributed to their various branches. This truck has centre rack to which all cases are inclined.

One of the trucks specially adapted to the lumber trade is described in the Schacht Company's advertisement, to be found on another page of this issue.

The company have a large and fully equipped, up-to-date plant at Hamilton, Ont., with Mr. F. L. Reid as general manager. Mr. Reid previously held a similar position for two years with the parent company in Cincinnati.

A Growing Industry in Eastern Quebec

Pulp and Paper Making at Bromptonville and East Angus—Remarkable Expansion of Progressive Manufacturing Company

The pulp and paper industry of Canada has developed greatly of late years, owing to the increasing demand from the United States, and to the depletion of the spruce forests of the Eastern States. As a result numerous plants have been erected in Canada, more particularly in Quebec Province, where the pulpwood resources are said to be practically inexhaustible.

General View of Works of Brompton Pulp & Paper Company at Bromptonville, P. Q.

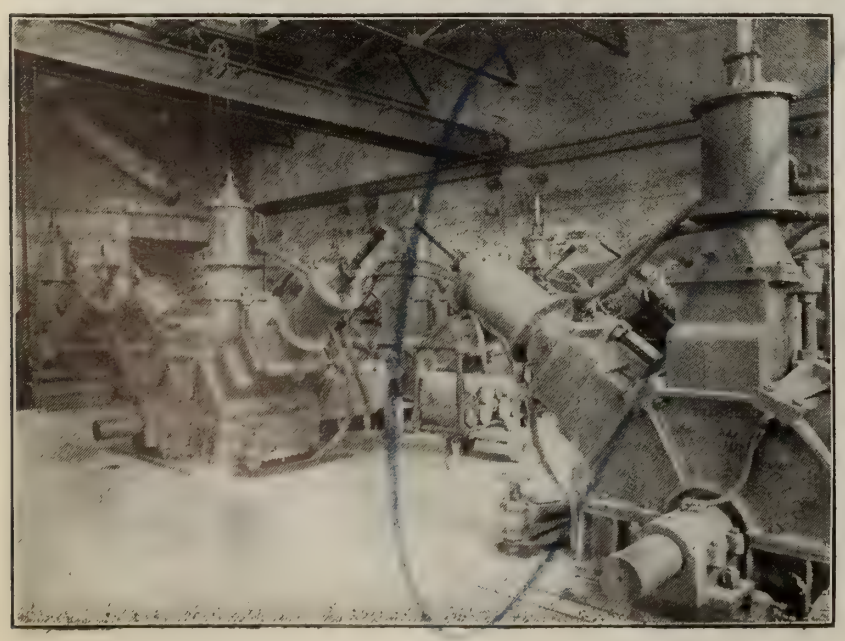
One of the first to realize the possibilities of this industry was Mr. E. W. Tobin, M.P. for Bromptonville, Que., who, in 1898, organized the Brompton Pulp and Paper Company. Since that time the company has been making steady progress and to-day is in the foremost rank of manufacturers, owning and operating mills at Bromptonville and East Angus, Que.

A fine power just below the village of Bromptonville was the first to be developed. A pulp mill was erected and fourteen grinders installed. Also the lay-out for a large paper mill was provided. Limits further up the river were acquired and the mill was run at full capacity from the beginning. It soon became apparent that an extension of the plant was necessary, and two years later the Brompton plant was enlarged by the installation of seven more grinders. It is, therefore, now operated as a 21-grinder mill, making ground wood pulp, and with a full head of water has a capacity of 140 tons per day. About 120 hands are employed at this mill.

Have Splendid Power

The company estimates that it has for its purposes here 10,000 h.p. For six months of the year it actually reaches this. Back of the Bromptonville power is not only the St. Francis River, but the Magog River as well, which joins the St. Francis at Sherbrooke, and also the Massawippi which unites at Lennoxville.

The Bromptonville power is capable of important additional development. This will be accomplished either by another dam a little higher up the river or by raising the present dam some 12 feet. The latter is the more likely proposition, and when carried into effect will increase the present development power by at least 33 1/3 per cent. This work is to be undertaken in the near future.



Part of New Generator Room, Brompton Pulp & Paper Company's Plant, East Angus P. Q.

of the Brompton Pulp and Paper Company's operations. In May 1907, the company purchased the mills and limits of the Royal Paper Mills Company, at East Angus, on the St. Francis River, sixteen miles above Sherbrooke city, on the Quebec Central Railway. It was at this time that Mr. F. N. McCrea, now parliamentary representative for Sherbrooke, and the smaller portion the present head of the company, became interested in the company, taking a large holding. The developments, improvements and extensions of the East Angus property have been a feature of the company's recent operations.

The Bromptonville mill is but a portion and

The Brompton Pulp & Paper Company is now organized as follows:

President, F. N. McCrea, M.P., Sherbrooke. Treasurer, W. N. Munroe, Lewiston, Me. General Manager, J. A. Bothwell, East Angus, Que. Directors: E. W. Tobin, M.P., Bromptonville; E. P. Lindsay, Boston; C. C. Wilson, Lewiston; H. E. Munroe, Lewiston; W. J. Pennell, Lewiston; H. E. Wilson, Lewiston.

The East Angus Plant

The East Angus plant consists of paper mill, sulphate pulp mill, two ground wood pulp mills, and sawmill. The paper mill has undergone important changes and improvements since it came into the hands of the present company. It has two paper machines with a capacity of about 30 tons of kraft paper per day. This kraft has gained a wide reputation because of its fine quality as wrapping paper, giving the maximum of strength per pound weight. The mill is operated at full capacity and consumes a large portion of the product of the adjacent mill.

When the Brompton Pulp & Paper Company purchased the property, this mill was operated as a soda pulp mill, but they changed it to a sulphate mill, the first of its kind in America. The plant was practically rebuilt, and has been running on the sulphate process for over four years. The pulp which is not used in the paper mill is shipped to different parts of the country. A feature of the sulphate

View of the Upper Power at East Angus, Owned by the Brompton Pulp & Paper Company

View of New Wet Machine Room, Brompton Pulp & Paper Company, East Angus, P. Q.

Section of New Wet Machine Room, Mills of Brompton Pulp & Paper Company, East Angus, P. Q.

pulp is the quality of strength which it gives to the finished product, the kraft paper.

In the vicinity of the paper and pulp mills is located the company's sawmill, the output of which is some 7,000,000 feet annually in dimension lumber, shingles, clapboards, etc. 2,000,000 feet of this is hardwood for the English market.

These plants are operated on the company's lower power at East Angus, where about 3,000 h.p. is available.

The New Dam and Plant

In May, 1910, the company begun the construction of a new ground wood pulp mill, three-fourths of a mile up the river, at a magnificent power, which had already been partially developed. This development was completed, the pulp mill erected, and on January 31, 1911, the production of pulp was begun. Twelve Jenckes grinders are installed here and have a capacity of 84 tons per day. This is one of the most modern pulp plants in the Dominion. The pulp is pumped through a 16-inch cast iron pipe, for three-quarters of a mile, underground, to the new wet machine room.

The new wet machine room is 100 by 200 feet, built entirely of concrete and steel, has ten 84-inch wet machines, built by the Sherbrooke Machinery Company, and fitted with eight Manson Centrifugal Screens. All the wet machines, screens and pumps have an individual electric drive.

Continuing its policy of development, the company, during the past year, has constructed another pulp mill, for ground wood pulp. This is now in operation. Eight grinders are installed here, with a capacity of 60 tons. This mill was started on February 20th of the present year. The total capacity of the mills is 150 tons per day, 100 tons of ground wood and 50 tons of sulphate. Among the recent additions to the plant is a new 112-inch paper machine installed last year.

The mills of the Brompton Pulp & Paper Company have to a great extent resulted in the building of two very prosperous towns in the Eastern Townships. East Angus now has a population of 2,700 people. Over fifty houses have been built during the past year, and others are being erected as rapidly as possible. Bromptonville has about 1,500 population and is a prosperous community.

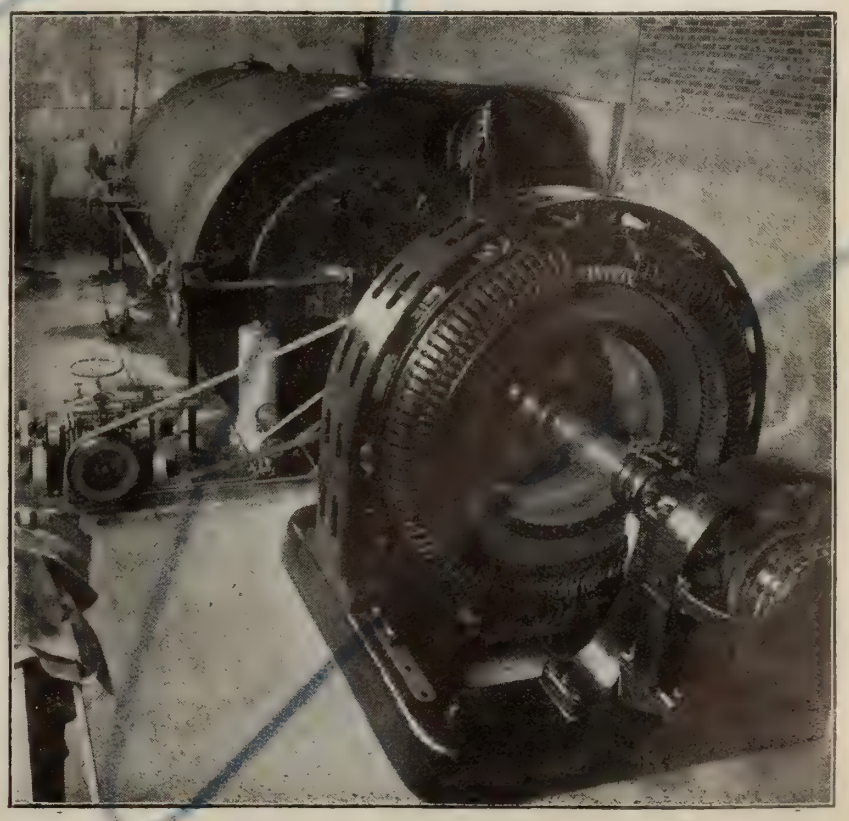
During the past year the company have purchased the interests of the Champoux Lumber Company at D'Israeli, the Emberton Lumber Company at Scotstown, and T. M. Craig at Reedsville, these being the only other large operators on the river. This enables the company to control the flowage of the river, which has a drainage area of 2,561 square miles. Tributary to its mills within this drainage area are: Lake Aylmer, Lake St. Francis, Lake Felton, Lake McGill, Lake Taure, Lake Algin, Duck Lake, Cariboo Lake, Trout Lake, Bear Lake, and several other small lakes, which constitute a vast storage basin of 132 square miles. The company has dams at the outlet of these lakes, and can regulate the flow of the river, ensuring a steady and ample power for the industries at East Angus and Bromptonville, and in addition they have the advantage of the Magog River storage, amounting to 110 square miles. This vast storage area already under control makes the St. Francis River one of the most permanent rivers for power purposes in the Dominion, enabling the mills to be kept running at full capacity the year round.

The Timber Lands

The Brompton Pulp & Paper Company now has about 276,000 acres of timber land, much of it virgin forest. This vast acreage of

The New Ground Wood Pulp Mill of the Brompton Pulp and Paper Company at East Angus, P. Q.

Paper Mill of Brompton Pulp and Paper Company, at East Angus, P. Q.



New Generator Room in New Pulp Mill of Brompton Pulp and Paper Company, East Angus, P. Q.

woodland is all located within the basin drained by the St. Francis River and its tributaries, so that pulpwood and logs from any part of the limits can be driven to either the East Angus or Brompton-ville Mills.

The company is constantly increasing its holdings. In March last it purchased the Roberge mill and 5,000 acres of lands at Garthby and Lambton, all tributary to the St. Francis. It is estimated that the limits belonging to the company are practically inexhaustible. This permanence is assured by the company's policy of conservation. At least 50 per cent. of the annual supply of pulpwood is purchased from settlers and farmers, so that only about one-half of the year's consumption is drawn from the company's limits. The annual drive is about 90,000 cords. About 33 1/3 per cent. of this goes to Brompton-ville, while the balance is disposed of at the East Angus plant.

The pulp, paper and timber industries of the Eastern Townships represent an important portion of the wealth of this district, and the Brompton Pulp & Paper Company will undoubtedly continue to hold an important place in the industrial records of the district.

Design and Equipment of a Modern Mill

Economy of Space Secured Without Sacrifice of Essential Operating Requirements—Wayagamack Company's New Mill Near Three Rivers

Rear of Mill and Sorting Shed—Wayagamack Sawmill

Log Haul-up and Mill Pond—Wayagamack Sawmill

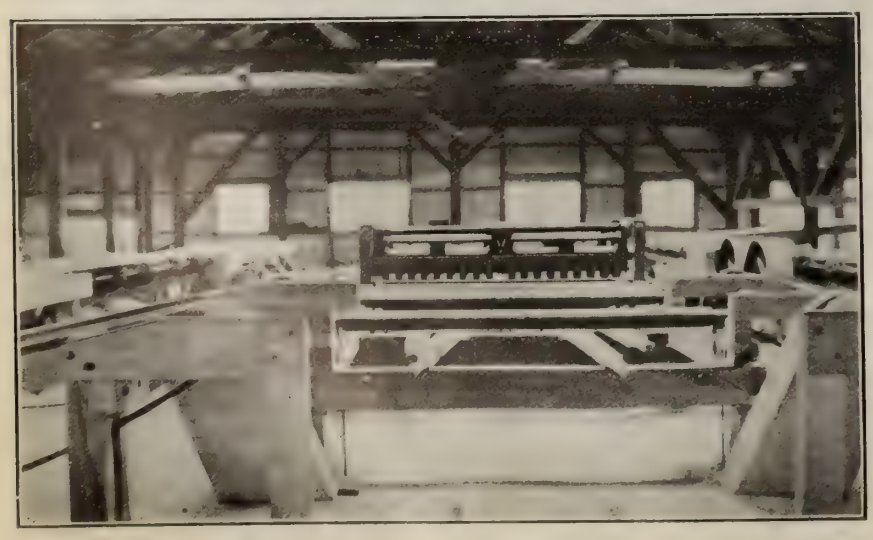
NEAR Three Rivers, P.Q., the Wayagamack Pulp and Paper Company have recently completed the erection of a new sawmill which has been designed and built with a view particularly to the conversion of the company's larger spruce trees into high class lumber. When the Wayagamack company took over the 1200 acres of limits formerly belonging to Alexander Baptist they found that much of the spruce timber was too large to be readily converted into pulpwood and that they would have to erect a mill to turn it into lumber. The mill has now been completed and is one of the most thoroughly equipped mills to be found in Canada.

Power Plant

The engine and boiler houses which adjoin the main building are built entirely of brick with steel roofing, are excellently ventilated and well lighted. In the boiler room which is 49 ft. x 54 ft., five 72-in. x 18-ft. return tubular boilers built for 150 lbs. steam pressure supply steam for the plant. The boilers are arranged in one battery suspended from overhead and provided with Dutch oven for burning sawdust and refuse. They are carefully bricked in and the brick front is covered the entire length of the battery with an iron face plate to give a neat, clean appearance. A steel sawdust deck 8½ feet wide extends across the entire length of the battery and forms a storage for fuel to feed the furnaces while the mill is shut down or is not supplying enough fuel. The boilers are fed automatically from horizontal conveyors which empty into the steel troughing and are connected with the furnace feed openings by steel discharge spouts. Each boiler is provided with a "Vulcan" soot cleaner and is connected by a steel smoke breeching to a brick smoke stack 150 ft. high, 72 in. in diameter. Above the boilers, a large header extends across the battery and is fed by steel U-pipe from each boiler. The steam from the header is carried into the engine room by a 10-in. pipe which passes the steam through a large capacity steam separator before it is fed to the engine. A 6-in. main from the separator carries into the sawmill the steam necessary to operate the steam actuated machinery.

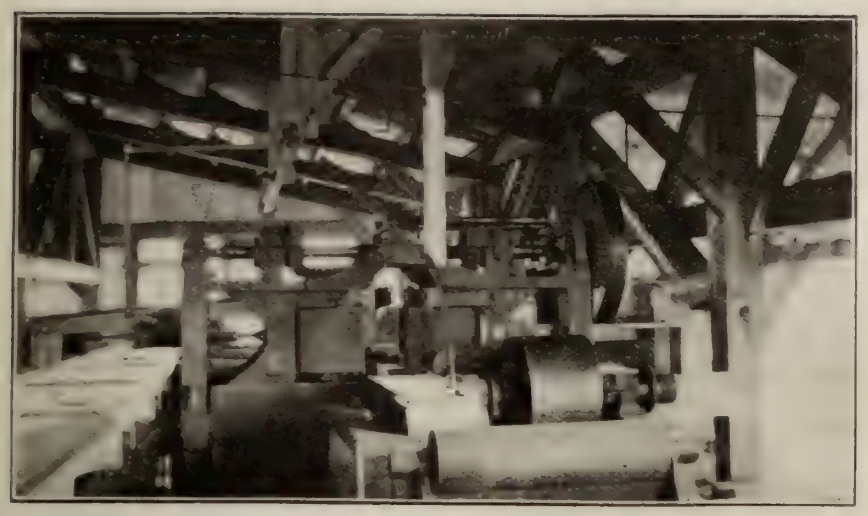
In the engine room, which adjoins the boiler house, a "Waterous Heavy Duty Saw Mill Engine" drives directly on the two line shafts of the sawmill proper. This engine has 24-in. x 30-in. cylinder, is equipped with improved rocker valve gear, and carries a fly-wheel pulley 13 ft. 0 in. x 3 ft. 6 in. The engine room also contains a 30-40 h.p. engine, which drives the fuel conveyors. This is provided so that the boilers may be supplied with fuel when the mill is shut down and steam is needed in the pulp mill.

The sawmill itself is 160 ft. long, 53 ft. wide at its greatest width. It is set back some 36 ft. from the water's edge and it, as



Double Sided 72′ Champion Edger—Wayagamack Sawmill

General Interior View—Wayagamack Sawmill



Behind the Resaw—Wayagamack Mills

well as the trimmer and sorting shed which adjoin the mill, are built entirely of selected fir, the framework being covered completely with corrugated iron sheeting. The roofs of the three buildings are also of corrugated iron, that of the main building being fitted its entire length with wire glass skylights so that the mill floor will receive an abundance of light from overhead. Numerous large windows on every side also aid in lighting the mill, with the result that there is not a dark corner to be found in the building. What impresses one most upon a casual survey is the amount of space and freedom from cramping that is evident. This is due entirely to the excellent arrangement of the equipment and the large amount of head room that has been allowed in the construction of the mill. The uprights throughout the main building are selected 12 in. x 12 in. timbers, each set on an individual concrete pier which is iron faced to receive it. The rest of the timbering is proportionately heavy and the effect is one of great solidity, strength and permanence.

In the main building, as in the rest of the mill, much thought has been given to the arrangement of the equipment in order to secure economy in operating space and to reduce the time of handling the stock being cut. This has permitted the elimination of several machines generally considered indispensible in a plant of this size and the substitution of machines of smaller capacity than would be considered necessary under usual conditions and with the old style of mill arrangement.

The logs entering the mill are handled by adequate log deck equipment, including two double arm 10-in. log flippers, two 10-in. log loaders, and two 8-in. x 10-in. x 60-in. stationary steam niggers. From this log deck, the logs are sent either to the right or left as desired, where they are taken care of by two double cutting 8-ft. band mills. The carriages which supply the mills have 42-in. and 36-in. knee opening respectively, with log seats of steel. They are fitted with steam setter and operated by gunshot feed. Leaving the carriages the boards are carried by live rolls and transfers to a double-sided 72-in. New Champion edger, which is designed to handle cants up to 6 in. thick. Slabs are either sent direct to the 5-saw slasher, and from there to lath mill or hogs, or are passed through a 42-in. circular resaw. A second, smaller, 40-in. edger takes care of the boards from the resaw, the discarded slabs being transferred across the mill to the slab slasher, and to the lath mill or hogs, as the case may be.

The Filing Room—Wayagamack Mills

Leaving the edgers, the stock is conveyed to a transfer table, and delivered to a two-saw trimmer 31 feet in length and arranged to trim from 6 to 16 ft. boards. From the trimmer the trimmed boards go to a 100-foot sorting table, where they are carefully graded.

The filing room, built with plenty of head room, is well lighted from the roof and from the sides and generally laid out and equipped to give the greatest convenience and ease in handling the saws. It is located directly above the band mills, and the saws are elevated and lowered through trap doors by a special wrought iron tackle, which makes an exceptionally fast and safe rig for getting the saws on and off the mills. The filing equipment consists of two Covel automatic band saw sharpeners and one Covel circular saw sharpener, one power saw stretcher, one emery wheel lap grinder, a set of shears and a brazzing forge. A small 10 h.p. vertical engine operates the filing room machinery, independently of the sawmill proper and thus the filing room is in commission at all times.

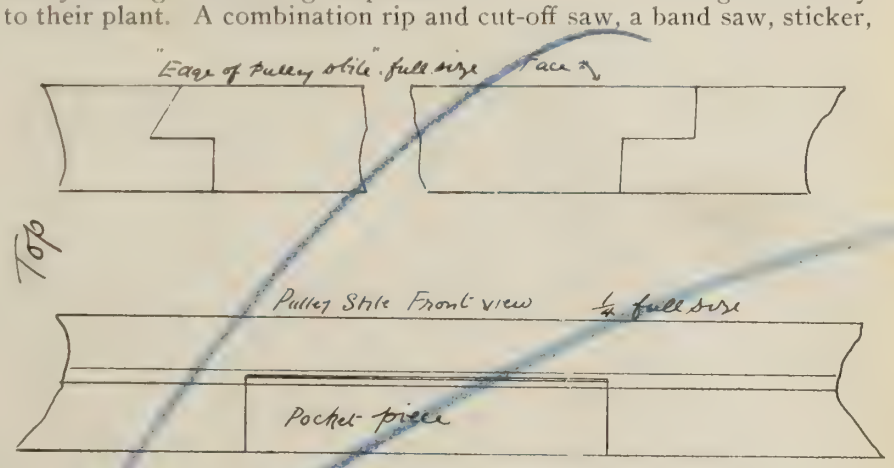
Capacity of the Mill

Since commencing operations in June of this year, the Wayagamack mill has more than exceeded the most sanguine expectations. Designed for a daily cut of 100,000 feet this figure has been easily reached and on more than one occasion a cut of from 30,000 to 40,000 feet over and above this estimated capacity has been made. This exceptional success reflects most favorably not only on the management and personnel of the mill itself but also on the Waterous Engine Works Company of Brantford, Ont., by whom the mill was designed, built and equipped in its entirety.

Practical Suggestions for Shop Practice

Written specially for the Canada Lumberman by Frank Bowers

With the advent of cheap power there is a very marked tendency among contracting carpenters to add wood-working machinery to their plant. A combination rip and cut-off saw, a band saw, sticker,



A Good Way to Cut Pockets for Frames

pony planer, and jointer, seems to be about the extent of the general investment. Whether it will pay in the long run remains to be seen. I have spoken to several, and they are hopeful that by buying their material in car lots enough can be culled out to do general joinery work. Then on wet and stormy days surplus labor can be utilized to advantage. Some I know made all their frames last winter for this season's work, and again where only one or two pieces of work are wanted or those of odd size and shape, they are knocked off hand instead of waiting to have them shipped from a larger establishment.

In the accompanying cut will be found a much better way to cut pockets for frames than the usual way—(this refers to those who have no machine for cutting them, and hundreds are still cut by hand). The usual way is to make two long bevelled cuts the length of the pocket—apart in the pulley stile. Then the pocket piece drops out. To fasten in again two nails are driven into the top bevel on pulley stile endwise about half its thickness to centre line of nails. Then two grooves are put into the back of pocket piece with chisel or parting tool to receive nails. Then pocket piece is inserted and a rap or two with the hammer is given to it at the bottom end on the face side which forces it up into the nails snugly. Then a screw No. 9 or 10⅞ is put through bevel at bottom end, and the pocket is firmly in place, but it stands above the surface of pulley stile owing to material being taken away by making bevelled cuts. This must be jacked and smoothed off before it is complete.

This is a process both tedious and expensive inasmuch as it wastes time and material. Here, in the cut you have an idea that will save, I know by actual practice, in time alone, three hundred per cent. After you have satisfied yourself that it is a better way, and I am sure a little practice will convince you, take a piece of board about 5 or 6 feet long and 7 or 8 inches wide. Nail or screw on one side a strip about 1 in. x ⅞ in. Then at convenient intervals

tack a block or two the same distance from the strip as is the widths of pulley stile. Now you have a board that will last you with careful usage as long as you want it.

Now then a batch of frames is wanted right off, bricklayers are waiting, and we all know what that means. I won't put it down here, (I might be in jeopardy of getting six months). Take down your board. Tack to bench. Take pulley stile, the cut in parting strip groove having been previously done on rip saw. Place pulley stile on board. It is held firmly by strip and blocks. Take a small back saw, about 7 in., usually termed a dovetail saw, and about 8 in. up from bottom of pulley stile, put a square cut from inside edge to parting strip groove. Cut under a little so as pocket piece will clear nicely on being removed. Then decide on lengths of pocket which will be determined by size of frame. Make the top cut square across same as before, but bevelled well under. Both of these cuts will be half thickness of pulley stile in depth. Turn over end for end and about 5/8 higher than the cut at bottom on face put in square cut half thickness down, and at upper end put in cut 5/8 lower down from face cut. That is all there is to it. Your pocket is cut and no nail or screws or facing off are required.

Be careful about cuts at lower end to give clearance, because the longitudinal face line of that pocket piece is really the radius of a circle and the cuts, if they were square down, would be tangents and would bind and therefore are cut under to conform to the circumference.

Now a word as to removing the pocket piece it will be observed that the only thing holding is the short grain between cuts, which can be readily broken by a slight tap with the hammer at lower end on the inside, which is best done after frame is together and before back lining is put on. But if it is forgotten, it can be easily done by the man who is about to hang the sash. Remove parting and inside beads. Insert wide chisel in groove and pry outward at the same time giving a smart rap or two at bottom, when it will be found to break off with ease and the parting and inside beads hold it firmly when replaced. I can safely say by practical experience this is much the better way and you can cut your pockets like cracking nuts, and a great deal quicker than some nuts we have to crack.

From a Foreman's Viewpoint

Written specially for the Canada Lumberman by Hapsburg Liebe.

To know of the difficulties encountered in the endeavor to act as a successful go-between, with the employer calling for results on one hand and the employees to keep satisfied and working to an advantage on the other; to know of the thanklessness many times met with while conscientiously trying to please all parties concerned, one must be—or have been—a mill foreman himself. I believe that I may speak of the subject in hand with authority; I have been foreman, and I have been employee, the latter from shavings boy to full charge of the filing rooms in very fast double band mills. Moreover, I have known many other foremen, and some of their troubles came under my notice.

True, it is an extremely gratifying position when everything is running smoothly; when the employees under one are good men and men of fair experience—else very willing to do the right thing, if they are green; when the employer expects but a reasonable amount of work, and there are not too many breakdowns. But it is not of the brighter side that I wish to speak, because it needs no elaboration. And this brighter side with its glories comes along with far less frequency than is observed by the superficial eye.

To take up the question of problems, I think the relating of one, just as it occurred in actuality, will be more interesting than ever so much preachment. Far from the least of the foreman's troubles is—

The Dissatisfied Employee

A foreman over the men in a large single band mill cutting soft woods exclusively told men one day that he had at last boiled things down at his plant until there was never the slightest hitch unless it was brought about through some minor break in the machinery. He appeared to be very joyous over it; perhaps he had drunk of the bitter so much that a taste of the sweet had turned his head.

And just one month later this same foreman told me that if he knew the next two weeks would be like the last that he would leave his job on as little notice as he could decently give, even if he had to hustle sawdust for a living. I asked him what was wrong, reminding him that he had told me shortly before of the satisfaction he was having at his mill. He gave me the whole story:

"A few months ago," he said, "one of my men got sick, and I had to take on a new man. This new employee was one of these bad potatoes that spoil a whole barrel; he was a smooth talker, and all he lacked of being an anarchist was the opportunity. Within three days after I had my last talk with you, I found that he had chinned the other fellows, men who had been giving me the best of service without the least grumbling, into the notion of striking for higher wages—and we were then paying as much as any other mill in the section. And he was so sly about it that I knew nothing of it until the whole outfit approached me in a body one evening, and, with the embryonic anarchist for a spokesman, declared their intention of seeking work elsewhere unless I added ten per cent. of their wages.

"Now, this man's very manner was one that was insulting to me. He addressed me in a way that subtly carried to the minds of the other employees the idea that I was strictly a skinner in the name of the company. I felt very angry; I could well have fought him then and there for his confounded impudence. But I held myself in, and told him that I would see the Old Man about it. I did that in order to gain time; I had never confronted just such a problem before, and I wanted to think over it. You see, there were none too many men to be had, and a shut-down of a week or so, with the yard pond full of logs, would have meant something of a loss. But I told them to trust me to do the right thing, and that I thought the Old Man would do the right, asking them to come back in the morning.

"It may appear to you that I should have had more influence over my men than had this bad potato; but please remember that this bad potato had been secretly at work for some time, also bear in mind that a foreman may not be on very intimate terms with all those under him unless he wishes to have advantages taken of him because of the friendships thus existing.

"I went to my employer and placed the matter before him; there was nothing else to do, although I disliked to bother the Old Man. He got up in the air at once, and asked me why I didn't fire the bad potato the minute he approached me—and his manner was not in the least a disguise of his real feelings; it said that he considered me a fool, just as plainly as if he had voiced it in those same words. He told be to find the dissatisfied man and fire him immediately.

"I knew where to find the boys, which was at a favorite loafing-place, at one of the stores. I walked in, called their leader out to one side, and told him in as nice a way as I knew that he no longer had a job under me—although I felt like trying to break his neck while doing it. He turned and motioned for the other fellows, telling them in rather vivid language that I had discharged him, and asking them if they were going to stay by him in the movement he was pleased to term The Cause. They were, and of course I was all sorts of a fool. I was hand in hand with trusts and iron-heeled monopolies, a traitor to the workingmen's side, a turncoat, a throttler of the throats of the poor. And they did stick to him; and the whole of the next week I spent racing here and there on the hunt for men. Now, I'm into the business of reorganization up to my ears."

That was his story, and I learned afterwards what I never doubted: That it was true, every word of it. Now, how many thanks did that foreman get for his earnest attempts to bring matters to a state of common satisfaction between his employer and the employees? Both virtually insulted him. He was given no credit for anything. If he had fired the dissatisfier of his own initiative, at the first, he would have but precipitated the shut-down then and there; by delaying the thing, he had a slight chance of a reconciliation—even if it did fail in the end.

A foreman may not always know of the secret work of the bad potato in time to get him off the job before he has spoiled the whole barrel; but if his presence is known in time much unpleasantness may be averted by letting him go immediately. He doesn't deserve another chance; such a chance is given at the jeopardy of the foreman, the other employees, and the welfare of the company itself.

The man whose trouble with a dissatisfied employee has just

been related touched upon a question that no one out of three will pause long enough to consider in its true light. It is that of a foreman's necesarily not being upon especially intimate terms with his men. You, reader, might not take advantage of this friendship, and I might not; but there are others who certainly would. Many a good foreman is called a prig and a swell-head because he has enough sense and experience—partially, I daresay, the latter—to mildly and diplomatically hold himself aloof from cultivating intimacies in general among those holding places beneath him.

And then, there is another reason for this aloofness that is so frequently misnamed. The foreman couldn't be friends with all the men under him; differences in beliefs, in temperaments, in views, would prevent it. Suppose, then, he has, say, half a dozen intimate friends among the crew, how long will it be until somebody will say that he is partial to that six? It won't be a week, take it from me. Thus will begin a thread of dissatisfaction that will grow bigger and bigger, and spread wider and wider, although at the outset it might have been merely a chance phrase, or a casual remark, and meant for nothing whatever. This is the well-spring from which will emerge more than one dissatisfied employee—and thus a bad potato forms in the barrel to spoil the others.

It must not be understood that I have in the least a small opinion of those who work under a foreman, for such, I assure you, is far from being the case; I have been there myself, and I know the life from the ground floor to the top of the smokestack—and from experience, that truest, if dearest, of teachers, I know that all men are human and therefore prone to err. And there is always somebody at our elbows who will not see these matters in the light in which you and I see them, taking it for granted that you and I view things in the correct light; and constant association with these men will certainly influence us—slowly at first, perhaps none at first, but we will finally bend to the other fellow because we are human, and thus our formerly rational views of things as they ought to be will get more and more unreal and blinding and distorted.

The Satisfied Employee

He is a jewel, to himself, to his associates, to his foreman, and to his employer; he is indispensable to everything in the scheme of the whole universe; upon his shoulders rests the welfare of the world—and to him it is a pleasure rather than a burden to bear this weight.

The first step toward this big place—to those who have not quite reached it—is the ability to understand that there is no perfection on earth, and least of all where the hand of business must keep itself busy or be rooted out and relegated to the rear; and with the ability to understand must go the capacity for making allowances for those daily things in the guise of nuisances that occur to disturb the peace of one's mind by breaking through system and routine. To fly off the handle when the least difficulty arises, to swear at everything under high heaven, and fling tools through the windows, and malign the Old Man to his back, to get mad and tell the foreman to go to torment for all you care; all this is the easiest bunch of things in the world to do—and the most foolish as well. It will hold good nine times out of ten. The easiest things are not the best things; anything under the sun that is worth while is also worth working for—and one usually has to work if he gets it.

The word "satisfied" does not quite embrace all that I should like it to embrace in this connection. I do not mean to say that a man should be satisfied to drive along in the same old channel, contented with his level and unambitious to rise in his sphere, with no desire whatever to work to a better position; instead, I mean that a man should not be dissatisfied in the way by which he hurts himself and everybody else with whom he is in touch, but dissatisfied with it. This is bound to show results in time. It may take the foreman and the employer a year to learn your name, but when they learn it it will stand for so much that they will not forget it. Thus you are in line for a better job.

This jewel of a man of whom we are speaking knows that he is not expected to raise his hat to the superiors when they come around, that he may be respectful without being slavishly servile. He knows that the foreman has a job to hold as well as himself, and he is willing to contribute his quota to that end because it is right. He knows that with the foreman, as with the employer behind him, it is purely a business proposition, because it has to be that to be a proposition at all in the modern gamut of things. He knows that when a yes or a no will suffice as an answer to a question that to waste words is to waste time—which is always money in the sawmill business. I know of nothing that a genuine business man dislikes so much as this way of talking much with one's mouth —if I may be permitted the colloquialism.

Meaning overdone system, and, in this connection, when it has its origin in the office. For system in the management of a sawmill—or in the management of any other manufacturing industry, for that matter—may be easily overdone. Red tape costs more by the inch, foot or yard than any other kind of tape in the world; it creates insubordination and disinterestedness with employees who would otherwise be good workers and with whom one could rarely pick a flaw. As time is necessary, usually, in carrying out overdone system, it is therefore time taken from the actual work; and, while the object is to save, it never fails to waste more than it saves.

I once worked in a mill and factory combined in which we had but half an hour at noon, during which time the men were expected to punch the timeclock twice—it was two hundred yards from the job, by the way—in addition to eating their lunches, doing their oiling, and lacing any belts that needed it. The red tape came in the business of registering in and out, and was unnecessary because the foremen of the different departments were right there to see that each man was at his place. Of course a change from half an hour to an hour at noon would have given time for all this; but the office wouldn't have it that way. Now for the results:

The log sawyer, prior to the before mentioned arrangement concerning the timeclock, had been changing saws at noon; he now found it necessary to make the noontime change during work hours, which was at least half an hour lost each week. Half an hour at seventy-five dollars a day is what? Wouldn't it have hired a pretty good man? Well, yes! The band ripsaw operator in the dimension-stock department below stairs, as well as several men running round saws, did the same thing. Steam lagged a bit after the mill started at noon because the firemen had so many things to do that they couldn't get around. Do you suppose the employees of this concern worked any harder because of this bit of crimson ribbon? No.

At another plant, at which I was the filer, I had to save all old files and turn them in at the supply department before I could get new ones—the rule there, you see, was to account for everything. Any sawmill man knows that an old file is one of the most generally useful things in the world; but here I had no chance for an old file because red tape had decreed not. Also I had to turn in the worn out filing room brooms before I could get a new one, which kept me from having a stubby brush with which to sweep off the saw teeth preparatory to swaging—until I bought one myself. Emery wheels the same way. Also I had to keep a record of the saws we used, what became of them, and all. This certainly was overdone system. And I sometimes wonder if it had anything to do with the concern's going to the wall, dead broke, within four years of the mill's starting up?

And where was it that I heard of a passerby running into a planing-mill, apparently excited, to butt into a youngish member of the firm and by him to be ordered immediately and authoritatively to repair to the office for the transaction of any business that he happened to have to transact—and upon going to the office, this passerby very calmly and casually remarks that their plant is on fire! Would it have been in the least undeserved if these people had lost their building and machinery?

The Employer

As there are differences in employees, just so are there differences in employers; it is but natural. But the employer is usually a much harassed man; he has a thousand and one matters to keep in mind if he keeps in business—and, as I am perhaps fond of saying, he is not in business for his health. Worry will account for much of his apparent gruffness. Competition at the present day is sharp, and he knows that there has been more than one fortune lost in the game of converting trees into boards.

Still, while it may be optional on his part, there is room for kindness to those who work for him; and I know of nowhere else where it is possible for kindness to be appreciated more.

At one of the biggest mills that I have ever seen, which is a branch of a very large company with main offices in one of the great eastern cities, the general manager, who was virtually the employer in this instance, found it to his advantage to accept another position. He had been very kind to his men whenever it was possible for him to get out among them; he had been as jovial as a boy with them, while never departing from the strict routine of business one iota. Therefore it was with real regret that the men of the mill, as well as those of the yards and woods, learned of his intended departure.

To show their appreciation of this sterling man, these employees each gave a dollar into a common fund and bought a diamond ring for him, keeping it secret until the day on which he was ready to leave for his new location. When he was presented with the bit of jewelry, which so well set forth the sentiments of scores of hearts, he took off his hat and faced them, meaning to thank them. But the thing had overcome him, and he couldn't say a word. However, the men understood, and that moment of silence was more impressive and more eloquent than any speech he could have made. He could have taken all those men with him.

Such kinship as this, between employer and employee, is too rare, perhaps. But who can say that there is anything finer in the whole world?

Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

The International Endless Chain Saw

The Endless Chain Saw manufactured by the International Endless Chain Saw Company, New York, is a machine of the greatest interest and value to the lumbering industry. It is adapted to a wide variety of purposes, and has important advantages over other types of saws now in use. It requires no foundation. Excepting when installed at the mill it need not be level. The power necessary to operate the Endless Chain Saw is about one-quarter the power required to run other saws of less capacity. It is not limited to small sized timber as it is built to handle trees up to 25 ft. in diameter. Its maintenance cost is claimed to be less than that of other machines and it is absolutely safe.

3½ 6" Portable Combination Felling and Cross Cutting Endless Chain Saw

The construction is very simple. A blade or distance piece determines the maximum capacity of the machine. This may be two feet long or longer, as local conditions make necessary. At either end of the blade are sprocket wheels, one of which drives the saw. The other is simply an idler, but so designed as to maintain a slight tension in the chain. This tension is maintained by a single spring working through a lever at the outer end of the blade. The chain is composed of a series of flat links which are riveted together (cold rivets) making the chain easy to repair or replace, and having a great advantage in case of breakage. By the inserting of an extra tooth or two it will maintain the original and rated capacity of the saw. These repairs can be made in two or three minutes.

For cross-cutting, the Endless Chain Saw is particularly serviceable, and its cutting speed is remarkable in woods of all descriptions. For felling standing timber, the Endless Chain Saw is extremely portable, and as the saw blade can be swung to any position or angle it is unnecessary to level the saw. It is therefore a universal machine for felling and for cross-cutting in the woods.

The rig is mounted upon a sled which is drawn by a horse. Upon the sled is mounted a turntable supporting a four-cylinder, four-cycle gasoline engine which permits the engine to swing to either side of the sled. At the front end of the engine are mounted the Chain Saw and its bearings. There is also mounted upon this sled a water radiator for cooling the gasoline engine. This saw, like all other saws manufactured by this company, is ready for work immediately when delivered to the purchaser, and no time is lost in installation, as is frequent when other machines are installed.

The Endless Chain Saw is now used by some of the largest and best known concerns in the world. The best proof of the value of the machine is the fact that repeat orders are being received by the International Endless Chain Saw Company from its customers.

The company is prepared to supply machines on short notice and full information regarding all details may be had from them by writing to the International Endless Chain Saw Company, 34 University Place, New York, U.S.A., giving the conditions under which the machines are to be used, together with the average diameter of the logs it is to work on, and also the largest logs which may be met with.

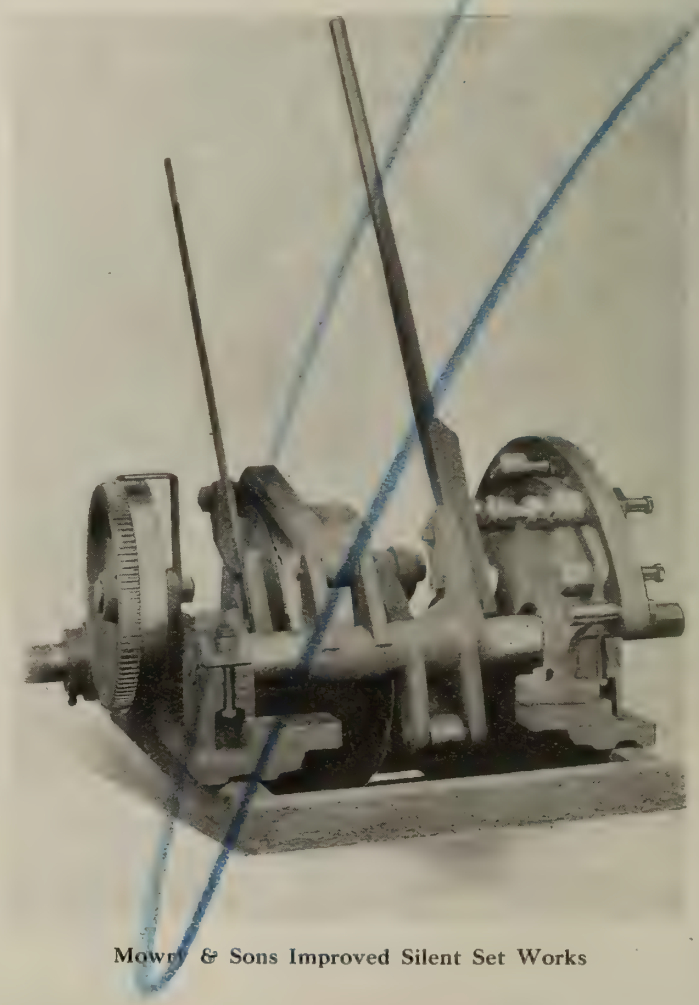
New Fay & Egan Catalogue

J. A. Fay & Egan Company, Manufacturers of the "Lightning" line of woodworking machinery, have just issued a new catalogue which is of interest to every owner and user of woodworking machinery. This catalogue, known as No. 86, is published in a size convenient for handy reference and in its 352 pages are illustrated and described all of the many improvements made in woodworking machines in the past year. The catalogue is really a text book on woodworking machines, and is evidently an expensive proposition to print and circulate. The Fay & Egan Company advise us, however, that they will be glad to send a copy, charges prepaid, to any owner or user of woodworking machinery who will address them on his own or company's letter-head as follows: J. A. Fay & Egan Company, 465-485 West Front street, Cincinnati, Ohio.

Mowry & Sons Improved Silent Set Works

The vital element upon which depends the degree of accuracy with which lumber is made, aside from the condition of the saw, is in the setting mechanism. It must combine lasting accuracy, simplicity and durability, together with ease and rapidity in operation with a perfect adaption for setting any required thickness of lumber. Mowry's silent set works are different from any other make. They have many superior points, being strong, compact, and exceedingly accurate. No ratchets, no noise, positive grip and no lost motion are characteristics of them. Neither oil nor water will affect them. These set works have been tried in many mills and recommended by millmen. They are low in price and can be placed on any carriage.

The company are so confident that these set works will please that they will send them to any responsible party on thirty days trial and assume the responsibility. Enquiries should be addressed to Mowry & Sons, Gravenhurst, Ont., and should contain a statement that their advertisement was noticed in the Canada Lumberman.



Mowry & Sons Improved Silent Set Works

Horses for the Lumber Camps

The Union Stock Yards of Toronto, Limited, located at Keele street, West Toronto, are the largest shippers of horses in Toronto, specializing in lumber horses as well as heavy draught horses. This firm started business in West Toronto in 1908 and every year since has shown a steady increase. During the past season they supplied horses to many of the largest lumber camps in Ontario. Their barn

Horses for Lumber Camps—Union Stock Yards, Toronto.

system, which is up to date in every way and has stabling accommodation for over 300 horses, is under government inspection. There is also a track for exercising horses while on the company's premises. Owing to their splendid rail facilities, being on the lines of the G. T. R., C. P. R. and C. N. R., they are in a position to ship horses at an hour's notice and are specially prepared this season to take care of the camp trade. J. H. Ashcroft, Jr., is the general manager and W. W. Sutherland, assistant manager.

The River Drivers' Visit to Toronto

By William Henderson.

Bob had come into the office to buy a plug of tobacco and he and Archie, the foreman, were comparing notes of former experiences.

"Do you remember the time we were on the drive, passing through Bracebridge?" said Bob, "when, after we had a horn or two, we went into a milliner's shop and bought all the stock of ladies' bonnets she had and wore them all day?"

"Remember," replied the other, "will I ever forget?—and we kept them to wear the rest of the drive. Wasn't it the darndest looking sight, to see fellows riding logs with those big flowery things on their heads the rest of the summer?"

"That reminds me," continued Archie, "of one time when we were driving into Huntsville and decided before we got there, that we would make our hats all the same shape. Every fellow had to soak his hat in boiling water, then take a stick and turn it straight up, like a sugar loaf, into a sharp peak. Some of them had quite good hats, but they all had to go the same way, and when we got to Huntsville, we marched through the town two and two, wearing those hats."

The above conversation gives a meagre suggestion of some of the pranks the lumberjack will play when the spirit is "upon" him, or in some cases "in" him.

The same Bob and Archie have seen many a queer proceeding through, and are still game for a turn of devilment when the occasion is ripe.

"Did I ever tell you," said Bob to his companion, a few minutes after the above conversation, "of the time Jack and I went to Toronto?"

"No? Well, this was the way of it, and you can believe me or not, but there's no hot air in this."

"We decided that when the drive was over we would visit Toronto and see the city. First of all we went to Orillia, to get a good outfit. This was before local option had struck the town, and by the time our clothes were ready we hadn't the price, so we gave up the idea that year.

"Next year we talked it over again and decided that this time we would get to Toronto first and buy our outfit after; so, as soon as we got the drive to Byng Inlet; we took the boat to Midland, just as we were, and then the train to Toronto.

"I had the usual flannel shirt, wide open at the throat, a pair of short Mackinaw pants, that I had been wearing all winter. The pants had worn so, that there was a fringe about an inch long below each knee and every seam had bust out, but I had nothing else, so I sewed 'em up with white thread in a dandy herring bone stitch, and they made a fancy show, for sure.

"As soon as we got to Toronto, we went to one of those big tailor shops, where they make a suit for you in a day, and we ordered our clothes to be ready next morning. Then we went out to see the town, just as we were. When we walked up Yonge street, you should have seen the people get out of our road and turn round to look at us, as much as to say, 'Where did those wild beasts come from?'

"That night, about eleven o'clock, I lost Jack and was trying to find my way to the hotel. I noticed a lighted store window, with a lot of fancy ties and things in it, all marked with prices. I was pretty shaky on my pins but stood to look at these things, and began talking to myself, pointing to one thing and another and saying what I would buy next day.

"I had been doing this for a few minutes when some one touched me on the shoulder. Looking around I saw it was a lad in blue clothes, so I says to him: 'What is it you want.' 'Oh,' says he, 'just to take you where you can get a good bed for the night.' 'I'm on,' says I, 'that's just what I'm looking for,' and off we started.

"When we got to the building it looked kind of funny to me. 'This is a queer looking hotel you are taking me to,' says I. 'It's all right, mate,' says he, "So in we walked.

"When we got in there was another lad in blue sitting at a desk, and he says, 'What's the charge?'

"This brought me to my senses, and when the fellow who had shown me in says, 'Vagrancy,' I spoke up and says 'What do you call that?' The man at the desk says, 'It means that a man hasn't the price for board for the night.'

"'Oh, that's it, it is?' says I, and reaching one hand into a pocket of my pants, I took out a handful of silver, 'Don't you think there is enough there to pay one night's board?' says I. Then I put my other hand into the other side pocket, and drawing out a roll of bills, I says, 'May be this will be enough. If it isn't, I have more,' and rolling down my socks I took out my wad of big bills to show him. I had my whole season's stake on me.

"'Where did you get all that money?' says the fellow at the desk.

"'I worked for it, and just got paid this morning,' I replied.

"Turning to the turnkey then he says; 'you had better put this man in a cell till morning and we'll take charge of his money.'

"'No you won't,' says I, 'or I'll charge you with false arrest,' so they let me go and I went to the hotel.

"Next morning we got our new clothes, went to the barber's for a bath and a hair cut.

"That night I took Jack to where I met the cop. After passing him two or three times without being recognized I stopped and asked him:

"'Have you been arresting any more vags. lately?'

"Say, you ought 'ave seen his face!"

At one of the sessions of the Pacific Logging Congress, held recently in Tacoma, Wash., it was natural that there should be an interesting display of Simonds Crescent Ground Cross-cut Saws. The accompanying illustration gives a general idea of the exhibit. Simonds saws have been very popular on the coast as they are exceptionally effective in cutting large timbers.

Mr. D. H. Clarke, who has been connected with the timber agencies' department of the government land office in Edmonton for several years, has resigned and will go to Winnipeg as assistant to E. F. Stevenson, inspector of crown timber agencies.

WANTED & FOR SALE DEPARTMENT

PUBLISHERS' NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

WANTED—LUMBER, ETC.

WANTED—A quantity of 4/4-in. Ontario Plain Red Oak, vicinity of Georgian Bay preferred. Apply Box 535, Canada Lumberman, Toronto, Ont. 14-17

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

Slabs and Cord Wood Wanted

Am open to buy any quantity up to 10,000 cords hard and soft wood slabs and cordwood. Write me. Horace Hartley, 19 ayor Street, Montreal. 15-19

Lumber Wanted

White Pine and Basswood Slabs wanted; from this season's cut; must be bright and of good thickness. Write stating how many cords you have, what you want for it on cars your station, and how much is ready to ship now. The Wm. Cane & Sons Co., Ltd., Newmarket, Ont., Canada. 17-19

Trimmer Ends Wanted

Price and freight rate permitting we will contract to take your White Pine Trimmer Ends, rotten pieces thrown out, fresh stock and not colored. Write price per cord on car and state shipping point.

The Wm. Cane & Sons Company, Ltd.,
11-17 Newmarket, Ont.

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4½ in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

FOR SALE—LUMBER, ETC.

For Sale

100 M. ft. 2-in. Cull Spruce. 300 M. ft. 1-in. Cull Spruce. 15 M. ft. 1¼-in. M. C. White Pine. 50 M. ft. 2-in. M. C. White Pine. Fred T. Smith, 310 Board of Trade Bldg., Montreal, Que. 1.t.f.

For Sale

25,000 ft. 2-inch [illegible]
40,000 ft. 1½-inch [illegible]
All No. 2 Common [illegible]
Can ship promptly
J. H. DIRSTEIN,
17-18 Elmwood, Ont

Lumber For Sale

4 cars 1-in. good cedar for boat building.
100,000 ft. 2 x 6 mill run hemlock.
100,000 ft. 2 x 8 mill run hemlock.
4 cars 2-in. white oak, sound and square edge. Apply to Geo. C. Goodfellow
C Montreal, Que.

For Sale

500,000 feet Band Sawn Birch 4/4, 5/4 and 8/4 in shipping condition, rail or water shipment The Rathbun ompany, Descronto, Ont. 14-17

For Sale

For quick shipment, 100 M. ft. 2-in. Birch, December, 1911, cut. No. 2 C. & B. at $20 per M. on cars. Farm Point, Que. Hall Bros., 174 Mutual Street, Toronto, Ont. 16t.f.

For Sale

For quick shipment, 800,000 ft. Birch. All grades and thicknesses.

200,000 ft. Soft Elm M. R. All thicknesses.
100,000 ft. Basswood M. R. inch.
100,000 ft. Maple. All grades and thicknesses.

Send us enquiries. The Meaford Lumber Company. 7-20

FOR SALE—MACHINERY, ETC.

Cowan double surfacer, pipe bender, rope drive, ribsaw, one fifteen horse motor D. C. one twenty-five horse generator D.C. Apply Gold Medal Furniture Manufacturing Company, Toronto. 15-17

For Sale

Large three band sawmill complete, blacksmith shop, docks and trams, located at Ford River, Mich. Will sell at a bargain. Address I. Stephenson Co., Trustees, Wells, Mich. 17-19

Machinery For Sale

A Waterous No. 4 Band Saw Mill, with Carriage Saws, Live Rolls, and complete Filing Room equipment, also several Good Woodworking Machines, in splendid condition.

J. S. FINDLAY,
2-TF Owen Sound, Ont.

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 70 H. P. boiler, 60 H.P. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water.

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

For Sale
Planing Mill and Lumber Yard

Lumber business consisting of an up-to-date planing mill and lumber yard for sale as a going concern earning good profits. Established thirty years. Permanent location and growing trade. Modern machinery and equipment. Thorough inspection of plant welcomed and full information as to past and present business and future prospects willingly given to interested parties. Reason for selling, owners wish to retire. Reply, Laird Bros., Dresden, Ont. 17

Machinery For Sale

Carver, 4 spindle, Rohlman.
Cut-off saw, railway.
Dovetailer, Boults.
Engines and boilers.
Jointer, chair seat, Jenkins.
Moulder, two side, 6-in. Smith.
Moulder, three side, 6-in. Smith.
Moulder, four side, 6-in. Houston.
Moulder, four side, 9-in. Fay.
Moulder, four side, 12-in. Woods, inside.
Mortiser, Smith.
Mortiser, Bit.
Planer, 2-in. Gem.
Planer and matcher, 9 in. x 6 in. Berlin.
Resaw, band, American, 48-in. wheel.
Resaw, 42-in. circular.
Ripsaw, band, 42-in. wheel.
Sander, 24-in. Perry, power, two drums.
Saw gummer, Rogers.
Sawmill, band, 63-in. wheel, carriage, 18 ft.
Shaper, home made, wood frame, two spindle.
Shaper, iron frame, wood table, two spindle, light.
Shaper, iron frame, wood table, two spindle, heavy.
Swing saws, 6 ft.

O. L. Packard Machinery Co.,
Milwaukee, Wis.

Logging Equipment For Sale

100 Russell logging cars, complete with all chains, brakes, etc., in strictly first class condition at exceptionally low price. Full outfit of logging equipment, horses, harness, sleighs, chains, tools, blankets and camp outfit, all at a small fraction of its value. Write for prices and full description to Yawkey-Bissell Lumber Co., Arbor Vitae, Wis. 14-17

WANTED—EMPLOYMENT

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

Situation wanted, as office or general man. Sixteen years' experience in lumber. Good references. Box 561, Canada Lumberman, Toronto, Ont. 17-18

WANTED—Position by young man as sawmill office manager or shipper. Ten years' experience with largest hemlock concern in East. References A.1. Address Box 560, Canada Lumberman & Woodworker, Toronto, Ont. 17-20

WANTED—Position as Manager of lumber operations—stump to market—experience in White Mountain (New Hampshire), spruce, hemlock, hardwoods. Logging, railroading, manufacturing lumber, box shooks, and spools. Reply Box 539, Canada Lumberman, Toronto, Ont. 17

Position wanted as Assistant Manager, Sales Engineer or Chief Draughtsman by engineer with varied experience in boiler and steel plate work, steam and water power plants and general machinery. Successful record, best references. Address Box 557, Canada Lumberman, Toronto, Ont. 17

Manager and Salesman

Would like to correspond with large first class Hardwood Manufacturers unrepresented in New York territory, who would open office here. Years of experience in all lines of hardwood trade. Well known and draw large business. Employed now and could hold open for 1913. Married; good salary wanted. Box 565, Canada Lumberman, Toronto, Ont. 17

WANTED—EMPLOYEES

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—A manager for retail lumber business in Alberta. Apply Box 558, Canada Lumberman, Toronto, Ont. 17

WANTED — General Superintendent for Sash and Door Factory and General Planing Mill. One who understands Plans, Cost, Estimate and having good control with men. Good position to the right man. Address Box 552, Canada Lumberman, Toronto, Ont. 16-17

Wanted

A first-class man to take charge of a well equipped Planing Mill, and Sash and Door Factory. Only a man capable of estimating and drafting need apply. References will be required. First-class salary to right man. Reply to Box 497, Renfrew, Ont. 17-19

WANTED—Manager for lumber business in Western Canada, cutting from three to four million feet of spruce per season. Must be competent and of undoubted integrity. One with a knowledge of driving logs and able to invest five thousand dollars or more preferred. Apply Box 559, Canada Lumberman, Toronto, Ont. 17

Reporter

We want an energetic representative in each town in Canada to report on building and engineering work—to tell us where machinery, equipment, supplies or materials may be sold. Reports are paid for on the per item basis. It depends upon your own efforts how much you make. This is a profitable side line and there is good money in it for a hustler. Write to MacLean Daily Reports Limited, 220 King Street West, Toronto.

WANTED—Assistant bookkeeper for lumbering office. Good wages for right man, capable of handling set of books. Address P. O. Box 162, Three Rivers, Que. 17

BUSINESS OPPORTUNITIES

For Sale

Timber limit, comprising 18 sq. miles, containing 25,000,000 feet mixed timber. Apply Geo. S. Nesbitt, Rupert, Que. 16-19

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest, if your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf.

For Sale — Sawmill with Capacity

Of one hundred thousand feet per day. Located in Everett, Wash. Good rail and water shipping facilities. Ten and one-half acres of land with excellent mill pond. Price less than one-third of appraised valuation. 15-18

Address, P. GARDINER, Everett, Wash.

For Sale

Established Lumber Business, with first-class mill, now running full time. Timber limits with 20 to 30 million feet of standing pine timber conveniently located, and all merchandise, etc. Price $55,000. This is worthy of investigation. Address Box 332, Canada Lumberman, Toronto, Ont. 19-22-t.f.

Timber For Sale

Tenders will be received up to and including the first day of October, 1912, for the right to cut white and red pine and spruce, on two timber berths on the upper waters of the Jocko River east of the townships of Garrow and Lockhart, in the District of Nipissing, Province of Ontario, the berths being designated "Jocko No. 1" and "Jocko No. 2," each containing twenty-five square miles more or less.

For maps and conditions of sale apply to the undersigned.

W. H. HEARST,
Minister of Lands, Forests and Mines.
Toronto, July 17th, 1912. 15-18

Important Sale of
Valuable Timber Limits

Sealed tenders will be received by the undersigned up to and including the **20th day of December, 1912**, for the purchase of:

Limit No. 194 of 1873-74—River Jean de Terre—tributary to the Gatineau, containing an area of fifty (50) square miles, more or less.

Limit No. 195 of 1873-74—River Jean de Terre—tributary to the Gatineau—Island Lake, containing an area of fifty (50) square miles, more or less.

These limits comprise some of the best pine and pulpwood areas in the Province of Quebec.

Map showing location of these timber limits and report thereon may be inspected at the offices of the undersigned and from whom further information may be obtained.

The highest or any tender not necessarily accepted, and the acceptance of any tender will be subject to the approval of the Court.

The Toronto General Trusts Corporation,
30 Sigin Street, Ottawa, Ont.
or
Messrs. Aylen & Duclos, Barristers,
Castle Building, Ottawa, Ont.
or
Messrs. Belcourt & Ritchie, Barristers,
Castle Building, Ottawa, Ont.

Dated Ottawa, August 5th, 1912. 16-20

WANTED—To hear from Box Mills in position to furnish boxes in car loads. Apply to Geo. B. Breon, Williamsport, Pa. 17-20

FOR SALE- A farm, sawmill and timbered lands, also a quantity of choice clear soft pine plank sidings. Apply to Hugh Cameron, Canonto P. O., Ont. 17-18

For Sale

Retail Lumber Business, situated in central position, Calgary, Alta. Premises for sale or on lease. Stock at wholesale price; easy terms. Apply Wattsburg Lumber Co., Ltd., Wattsburg, B.C. 16 & 17

The Standardization of Saw Teeth

Many operators and manufacturers in this decade are unduly concerning themselves with what they are pleased to designate the "standardization" of saw teeth. writes A. W., in the Timber Trades Review. In connection with the size, shape and selection of all saw teeth (band, frame and circular), considerable difference of opinion exists even amongst those who are regarded as practical and efficient men. That there is a wrong shape and a right is perfectly true; improper and proper space and angles likewise true. However, it is impossible to observe any hard and fast rule in this matter, and it is quite practicable and feasible that considerably wide margin should be given. In other words, it is impossible to invariably preserve space and length identically. A difference of ¼ or ⅜ in. in the space of log band saws, say from 1⅜ to 1¾ in., should not damage the capabilities of the teeth in the slightest; correct angles are of much more importance than space.

There are many reasons why saws may not perform their work efficiently or accurately independent of the tooth question entirely, and it should be accepted and understood that a saw (especially log band or circular) which will produce good work while cutting hardwood will produce equally good work while converting softwood. I venture to assert that (not including the vertical log frame) all this talk of having one type of teeth for hardwood and another for softwood is to a considerable degree unnecessary, for so long as special hardwoods are not in question the shape and space of teeth should not be altered, consequently the institution or introduction of so-called "standardization" would simply make matters worse instead of better, for, not taking into account the increased number of saws which would be required for each machine, saw makers and trimmers would be subjected to the additional disadvantages of having to alter the dies and punches of their fly presses, and a great deal more time would be expended on the necessary adjustment of the grinding machine which numerous varied forms and angles of saw teeth would entail.

As previously stated, there are many reasons besides the teeth for a saw not performing its work satisfactorily. Feed speed and guiding are two important features in connection with sawing. In many cases defective feed speed and guiding is not discerned by the operator, who generally thinks that when indifferent work is being produced the fault is attributed to the form, space and angles of his saw teeth in relation to the kind of wood being sawn. From such sources, I may safely assume (in most instances, at least), do the cry of the "standardization" of saw teeth spring. So far as circular saws are concerned, "standardization" of teeth could not be practically observed. With these saws the distance of space between points is diminished as the saw wears down. Thus for a 42-in. saw the space may be 2½ or 3 in., but as the saw decreases in diameter, say, to 30 in., the space is lessened to 1¾ or 2 in. So in the face of these mechanical conditions complete or beneficial standardization is impossible; besides, it is unnecessary, for the circular saw which will cut softwood rapidly and well will also cut hardwood equally so, all the difference being that a slower feed must be applied to the latter than the former.

Woodworking Speeds

"A. T. G." writes: "Can you tell me if there is any rule when calculating the speeds of driving woodworking machinery as to what is the usual allowance made for the slip of the belt? I recently tried with a speed indicator a circular saw bench and a vertical spindle sharpener both in and out of the cut, and was surprised to find a variation of over 30 per cent. in the speed. I presume the speeds given in makers' catalogues are those at which the cutting tools should run at when in full work, and if they are not maintained a large loss may be constantly going on undetected."

Undoubtedly, says the Timber Trades Journal, all tools should be kept up to their full standard speed when in full work, and we think if other users besides yourself tested their machines in a similar manner many would be equally surprised. The question of keeping all machines up to their standard speeds is a highly important one, but we fear it is one that is often considerably neglected.

As regards the allowance for belt slip when calculating out speeds, we know of no fixed rule, as the amount of slip would largely depend on (1) the driving centres; (2) the width, quality, speed and condition of belt; (3) the size of driving and driven pulleys, etc. Supposing the centres are correct, the belt of ample power, and the other conditions normal, an allowance of 10 to 15 per cent. for slip should be quite sufficient. We need hardly say that narrow, over-strained belts are the most frequent cause of slip, and their use is the reverse of economical. The same remark holds good where pulleys of insufficient diameter and width are used for transmitting power.

Uses for Sawdust

Flour for trade purposes from sawdust is now in common use. it is an ingredient of dynamite, linoleum, xyolite, etc. The wood flour is ground in a mill, very similar to those which grind corn and rye. Pine and spruce sawdust is used and after passing through the stones and the bolting chest, it is sacked or baled for shipment. It is then worth 48s. to 52s. a ton. The flour has a number of uses. It is the absorbent for nitro-glycerine, which is the explosive ingredient. Wood flour dynamite is inferior to that made with infusorial earth as the absorbent; but it serves many purposes and is cheaper. But dynamite is one of the smallest prospective uses for the product. Linoleum makers mix it with linseed oil and give body to their floor coverings. It is not considered quite equal to ground cork for this purpose, as it is less elastic, but it is cheaper and meets requirements for medium grades. The flour fills an important place in the manufacture of xyolite, a kind of artificial flooring, resembling wood in weight, and stone in other respects. It is used for kitchen floors, and in halls, corridors, cafes, restaurants, and public rooms. It is impervious to water, and is practically fireproof. It is floor material in some of the German war vessels. It is so used because it is not liable to take fire or splinter if struck by shells.

There should be practically no allowance made for belt slip on any saw mill machine. All belts should run without any slip, and if slip arises in any form it is a sure sign that there is something wrong somewhere, and it is for the operator to discover or locate this defect. It may be in the tension of belt, diameter or width of pulleys, in working with blunt tools, and many other reasons. However, so far as I can glean, the variation in revolving speed in this case cannot be attributed to belt slip, but to inadequate motive power. Many engines and motors will not maintain a uniform speed while running under load as when running light, but a difference of 20 or 30 per cent. should never exist. With well-governed engines the variation of speed should not in any case exceed 5 per cent. In other words, an engine having a normal speed of 100 revolutions per minute while running light should not decrease more than to the limit of 95 revolutions while under load. All modern motors, engines and machinery are of such efficient construction that difference of speed is not perceptible irrespective of load, so the writer who tells of the variation of speeds which he encounters clearly shows that the conditions under which he works are out of date.—A. M. in Timber Trades Journal.

"Screeching" Driving Belts

It is not an unusual sound in a saw mill to hear driving belts screeching, and as this means loss of power and damage to belts the cause should always be at once sought out and remedied. Supposing the belts are of sufficient width to easily transmit the power and are not too tight, the most frequent cause of screeching arises from the driving and driven pulleys not being dead true with one another, and this causes the belt to run spirally, stretching it unevenly and reducing the arc of contact or driving power between the belt and the pulley faces. Again, belts are often allowed to rub on part of the face of a tight pulley when standing or against its edges or the stationary bars of striking gear; consequently they become unduly stretched on their edges, and their driving power is reduced in proportion, as complete contact does not then take place.

What J. D. Shier says about the Barkey Lumber Register

Barkey Bros., Stouffville, Ont.
Dear Sirs,
Yours to hand and noted. We have been using one of the George Lumber Registers for some years past and find it still working well. It gives very accurate measurements and have never known it to make a mistake. When in need of another we will certainly get one of the same kind.
We remain respectfully yours,
Feb. 5, 1908. J. D. SHIER, Orillia, Ont.

Can be used on any moulding or matching machine.
Ensures absolute accuracy and saves one man measuring.
Sent on 30 days' trial, return at our expense if not satisfactory

BARKEY BROS.
Sole Manufacturers
STOUFFVILLE - ONTARIO

1911 Model Linderman Auto

WHO are using them:—

W. C. Edwards Co., Ottawa, Ont., 4 ft. machine, boxes

W. C. Edwards Co., Ottawa, Ont., 8 ft. machine, boxes

Meyer-Thomas Co., Granby, Que., 4 ft. machine, boxes

Zimmerman Bros., Tavistock, Ont., 12 ft. machine, boxes

M. Langmuir Mfg. Co.. Toronto, Ont., 10 ft. machine, trunk boxes

J. Eveleigh & Co., Montreal, Que., 8 ft. machine, trunk boxes

L. McBrine & Co., Berlin, Ont., 6 ft. machine, trunk boxes

Cummer-Dowswell, Ltd., Hamilton, Ont., 6 ft. machine, washing machines

Wm. Cane & Sons Co., Newmarket, Ont., 3 ft. machine, woodenware

Czerwinski Box Co., Winnipeg, Man., 8 ft. machine, store fixtures

Cushing Bros. & Co., Calgary, Alta , 12 ft. machine, interior trim, veneered doors, store and office fixtures

Western Manufacturing Co., Regina, Sask., 16 ft. machine, interior trim, veneered doors, store and office fixtures

Canadian Pacific Railway Co., Montreal, Que., 10 ft. machine, railway cars

Knechtel Furniture Co., Hanover, Ont., 6 ft. machine, furniture

Knechtel Furniture Co., Walkerton, Ont., 6 ft. machine, furniture

Canada Furniture Mfrs., Woodstock, Ont., 6 ft. machine, furniture

Victoriaville Furniture Co., Victoriaville, Que., 6 ft. machine, furniture

ON ORDER,—Not yet shipped:—

Canadian Office & School Furniture Co., Preston, Ont., 8 ft. machine, school seats and desks

D. Hibner Furniture Co., Berlin, Ont., 6 ft. machine, furniture

Martin Freres Co., Montreal, Que., 4 ft. machine, boxes

CANADIAN LINDERMAN

MUSKEGON, MICH. Works

matic Dovetail Glue Jointers

WHAT are they making:—

BOXES:—Converting narrow width lumber, shorts and short shorts into wide stock for one piece ends, sides, tops and bottoms, effecting a saving in the original purchase of their lumber from $2.00 to $10.00 per thousand, actual figures given after testing out the machine, securing results in the finished product never before possible.

BANK, OFFICE AND STORE FIXTURES:—Interior finish; cores for veneered doors; casing; base boards, etc.

CORE WORK for interior of cars; joining up solid panels, etc., for sleepers, diners and coaches.

WIDE PANELS for washing machines from narrow widths so as to make tight water joints where before wide lumber was necessary.

HEADING for candy pails, lard tubs and wooden buckets of all descriptions, utilizing the narrow widths of stock 1″ and upwards, 7″ long and upwards.

FURNITURE:—Solid Quartered Oak Matched tops, Mahogany, Plain Oak, Maple, obtaining better joints than ever before possible: making drawer sides and bottoms; back panels; chair seats; cores for veneered stock; etc.

In fact there are 1911 model Linderman Dovetailers working to-day in Canada on practically every different kind of work requiring wide stock, and all machines are doing the work better, far cheaper and more satisfactorily than is possible by any other method.

Tell us your conditions and we will outline the results

COMPANY, LIMITED

t WOODSTOCK, ONT.

Review of Current Trade Conditions

Ontario

Trade conditions in the lumber business throughout Ontario continue on a very satisfactory basis. The great amount of building operations in progress are causing a widespread demand for all classes of lumber. Spruce in particular is in excellent demand. Travellers report that they have never known so good a demand for spruce since the spring of 1907. The best demand is for spruce flooring and siding. White pine laths are very strong. New Brunswick shingles are in good demand throughout Eastern Ontario. Extras are selling at from $3.40 to $3.55 and clears at $3.15 to $3.30 delivered at Toronto. Second clears are bringing from $2.25 to $2.30. The demand for hemlock continues remarkably strong, dry stock has disappeared from the market and there is a good demand for the new cut in all sizes. New cut of hemlock has been on the market since the middle of July. The reduction in the quantity of hemlock taken out last winter and the improvement in the demand have resulted in all classes of hemlock being bought up almost from the saw. Inquiries for hemlock are much greater than the supply in the standard lengths. The fact of the matter is that with the opening of the spring trade there was very little hemlock. In fact it is difficult to say where stock will be secured. Manufacturers this year cut their logs to the long lengths, 10 ft., 16 ft. and 18 ft., consequently their is a great shortage of 12 and 14 ft. lengths and presumably no possible chance of replenishing these sizes before the mills start on another season's cut. Prices are very firm with a strong tendency to advance. Twelve ft. hemlock is worth now as much as 16 ft. was worth recently, namely, about $18 per thousand. Hemlock stock boards are very scarce. A shortage is developing in No. 1 and No. 2 mill cull pine. White pine 1-in. x 4-in. and 5-in. is growing scarce.

B. C. shingles are strong and dealers who do not put in their orders for fall trade at an early date will probably be disappointed, because every indication points to a great shortage of cars on account of the movement of grain.

Eastern Canada

The lumber trade at Montreal continues very brisk, offering an excellent outlook for the fall business. Practically every branch is enjoying an active demand and several important lines of lumber are growing scarce. Prices all along the line are firm, while shingles, clapboards and railway ties are moving rapidly. The old complaint of shortage of cars continues and the trade is suffering considerably on this account. Exports to the Old Country are large and prices continue strong. There is a good demand for news print paper and some improvement is reported in the ground wood situation. The shortage of water in the Eastern States again threatens to reduce stocks of ground wood and the approaching election campaign promises to produce an exceptionally heavy demand for paper. Sulphite is particularly scarce and prices are strong with an indication that they will continue so for some time to come.

Reports from Boston indicate a fairly good trade, although there is some hesitation, as is usual at this time of year. A few sales of eastern spruce have been reported of late at lower prices than formerly. For frames, most of the business is going at $24.50, although some manufacturers are holding out the $25. Random is moving steadily and prices are unchanged. Hemlock at Boston is firmer and offerings of dry lumber are scarce. Eastern clipped boards are held at $22.50 and a few lots at $23. The shingle business at Boston is about steady and prices are unchanged. Cedar extras are held at $3.90 to $4 and clears at $3.60 to $3.65. Lath are a little firmer. For 1⅝-in. the price asked is from $4.10 to $4.15 and for 1½-in. from $3.65 to $3.75.

At New York the business in eastern spruce is about normal. Dry spruce boards are almost out of the market and random stock is firm. Hemlock is strong with an upward tendency. Many sizes are scarce, particularly boards.

Strong prices continue for all grades of New Brunswick spruce and an upward tendency is reported from St. John for all classes of wood goods. The English market is particularly strong, although the continued high rate of freights is still acting as a drawback to trade. This is also noticeable in connection with coastwise trade shipments. London steamers are still asking 45s. per standard and space is limited. The fact that many of the St. John and interior mills are sawing more extensively than usual for United States markets will reduce stocks of English deals for liner shipments from St. John. It is just possible that this may have an effect in the direction of reducing freight rates to the Old Country. Most stocks of deals throughout the province are reported to have been sold. North Shore freight rates are around 57s. to 58s. and vessels are scarce.

Recent sales of deals on sellers' wharves have been made at about the following prices: $15 for a specification of 50 per cent. 7-in. and 8-in. x 3-in., balance 9-in. and up; $13 for 3-in. x 4-in. and 3-in. x 5-in.; $13.50 for 3-in. x 6-in.; $11 for deal ends and $13 for fourth quality.

American prices remain firm at from $22.50 to $25 for random, according to the percentage of 2-in. x 8-in. and up and 20 ft. and up lengths, for New York and Sound ports delivery. Coastwise prices are about $4 on long lumber and 80c per M. on lath, New York delivery. The indications for the Fall and Winter trade are excellent, improvement being particularly noticeable in the English market.

Local trade at St. John is good, with refuse boards, scantling and deals bringing $9 on the yards at the mills. Hemlock boards are scarce and are worth about $14 planed on yards, hemlock logs are scarce. Laths are selling well and stocks are low at the mills, the price being about $2.70 f.o.b. sellers' wharves.

Great Britain

Trade conditions throughout the United Kingdom have shown remarkable improvement during the months of July and August and the lumber trade has enjoyed the betterment as much as any other. An idea of the general trade situation may be obtained from the fact that exports during July, 1912, amounted in value to £42,000,000, whereas during July, 1911, which contained an extra working day, the exports were valued at only £34,500,000. In 1910 the total for July was £38,000,000. An important feature of the statistics is that in spite of all the troubles of the present season—the lock-out in the cotton trade, the protracted coal strike, and the several labor troubles in the port of London—the trade of the country for the seven months up to the end of July shows an increase of over £9,000,000, as compared with last year, or about 3½ per cent. If the comparison is made with 1910, the increase is much greater, being £24,000,000, or at least 10 per cent.

Some improvement is noted in the London timber trade, although the effects of the strike are still noticeable at the docks. Quays are still loaded with cargoes from the last of the spring fleet. The fresh arrivals, however, are not numerous, and this situation is expected to disappear gradually. Steamers are still hard to secure, even at the present high rate of freights. Values are increasing gradually. There is a steady demand, especially for the export trade. Deliveries at the London docks for the week ending August 10th amounted to 5,927 standards. Last year there were nil during the corresponding week, on account of the strike.

Holidays have been interfering considerably with Liverpool trade of late. In spite of this, however, a fair volume of business has been in progress in all branches of the whitewood trade. Country buyers have apparently decided that they must pay the prices which they refused a few months ago. No change is reported in regard to spruce deals. Ocean freights from St. John, Miramichi and other New Brunswick ports are still high and steamers are difficult to secure. Importers at present are not able to make much profit as the country consumer has not yet come to realize that freight rates are high and marine insurance expensive. Stocks of spruce deals at New Brunswick and Nova Scotia ports are reported to be only moderate in extent and the demand from the United States is interfering with shipments to the Old Country.

For an ordinary specification of, say, 70 per cent. of 3 x 7 and 3 x 8, balance various sizes, for good sized steamers to west of England ports, high prices prevail. The market for Canadian pine deals is unchanged.

At Manchester, bad weather has had a depressing effect upon trade. Spruce deals are firm and there is a great scarcity in practically all sizes of any lengths over 16 and 17 feet. Short average cargoes have been the rule this year, resulting in an apparent great demand for log deals and scantling. Floorings have been selling at £10 2s 6d, c.i.f., although some shippers are holding out for £10 5s. Slating battens are very scarce. The lowest price is £8 10s c.i.f. Arrivals of pine sidings have been numerous but there have not been enough of the first quality. Values are very firm, even 1-in. and 4-in. to 6-in. being valued at £25 to £26 per standard, ex quay.

United States

The lumber trade in the United States continues to enjoy almost uniform activity. A pronounced increase in the demand is noticeable for September trade. The only difficulty in sight is the annual shortage of transportation facilities, as it is believed that the impending shortage of cars will be almost of a paralyzing nature. The scarcity of transportation facilities has in fact made itself felt already and reports are coming from all quarters that the crop of the present year will be of enormous proportions and that the process of carrying it to market will choke up every avenue of traffic.

Raft containing 6,000,000 feet towed from the Georgian Bay to our Mills Arrived in Sarnia on August 5th

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Retailers and woodworking establishments who like to get AI NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

How about PINE LATH? We have a fine dry stock of No. 1 4 ft. on hand for immediate delivery.

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SARNIA, ONTARIO

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Chicago.—The trade in northern pine is steady and the indications of a good grain crop are assisting the lumber trade. Full prices are being secured by lumber manufacturers. Some of them, in fact, have advanced the prices on Nos. 4 and 5 white pine boards by $1 during the past month, and report that they have no trouble in getting rid of all their product at the advance. Retail yards are coming forward with a strong demand as they foresee good business during September and are anxious about securing shipments. Hardwoods are in good demand, particularly from the factories.

Interior furniture plants are enjoying a revival of business. Implement and wagon makers are asking for increased quantities of staple hardwoods. Dry stock in many cases is short. Plain red oak is moving quickly at good prices. There is a fair demand for quartered white oak. Hickory, birch and maple are all active, particularly in the lower grades. Basswood No. 2 and No. 3 are very strong and stocks are scarce. The market for hemlock continues strong with a greatly increased demand and stocks exceptionally scarce. The yellow pine trade is enjoying plentiful enquiries, particularly from the railroads, which are buying freely. Prices are stronger than they have been for several years. Red cedar shingles are advancing. The price is now 15c. higher than a week ago. Clears are selling at $3.57 and Stars at $3.14, Chicago basis. White cedar shingles are firm. Extras are bringing $3.20. There is a strong demand for lath and prices are firm.

Buffalo.—The northern pine trade during the month of August was heavier than was looked for, although a great deal more business could still be handled without difficulty. Box factories are rather quiet but are expected to start up within a few weeks. The hardwood trade is fairly active, the aggregate amount of business being about normal. Stocks in the yards are plentiful in most cases, although in some woods they are less than usual, on account of the difficulty in getting dry lumber. Prices are firm with a tendency in some cases to further strength, particularly in plain oak. Birch is in good demand. Orders for hemlock are plentiful and prices are being held firmly. The recent advance appears to have no disturbing effect upon trade and the indications are for continued strength. Arrivals of stock are in fair amount. Southern pine is continuing strong and shipments are coming along fairly regularly. Continued strength is expected during the next few weeks. Red cedar shingles are strong and several advances have taken place of late. Some grades are selling at 30c more than a few weeks ago, and the general market is from 15c to 20c higher. The receipts are fairly large but not sufficient to affect the firm prices.

Market Correspondence

Marked Improvement in New Brunswick Trade

St. John, N.B., Aug. 25. (Special correspondence of the Canada Lumberman): The markets for all grades of spruce remain firm. In fact the price of all wood goods seems to be tending upwards, especially in the English market. The only drawback being the high rate of freight asked by foreign and coastwise tonnage. The rate asked by London steamers still remains at 45 shillings and space is somewhat limited. Stocks of English deals for liner shipments from this port will not be as heavy as usual during the coming winter, as many of the mills in the interior and the city are sawing large quantities of spruce for United States markets. Therefore it is felt that, should the liners need cargo they will be forced to lower their rates. It is said that the larger proportion of deals throughout the province have been sold and shippers who have deals on the north shore of the province are making strong efforts to have them moved before winter sets in. The rate of freights from the north shore at present runs about 57 to 58 shillings and vessels are scarce.

A large quantity of deals have changed hands at private terms, but it is understood that the price was about $15 for a specification of 50 per cent. 7 and 8 x 3, balance 9 in. and up, with about $13 for 3 x 4 and 3 x 5; $13.50 or thereabouts for 6 x 3, with local ends at about $11 per M. and 4th quality $13, all deals being sold on sellers' wharves.

Prices in the American market still remain firm with random selling anywhere from $22.50 to $25 according to the percentages of 2 x 8 and up and 20 ft. and up lengths, delivered in New York or Sound ports. Freights are still high for coastwise shipments, no vessels being closed for less than $4 per M. on long lumber and 80c. per M. on laths for New York delivery. Taken all around the prospects for a good fall and winter trade are brighter than at any time during the year. Especially is this the case in the English market.

Local business is very brisk as all the factories and yards are well supplied with business and as there is quite a lot of heavy building in progress or under consideration. It is felt that in this line there will be no let up until snow comes. Refuse boards, scantlings and deals are selling for $9.00 on yards at mills. Order stocks from mills for local trade bring good prices.

Hemlock boards are scarce and are selling for about $14 planed, on yards. Hemlock logs are scarce and it is felt that the board market will remain very firm. The lath market is also in excellent condition, very few laths are being held on wharves at mills and what are, have been sold at about $2.70 f.o.b. sellers' wharves.

Shooks—The box trade in this section of country is very brisk, good prices being realized, but one must take into consideration that although prices are higher than last year, the manufacturers are paying a very much higher wage. Should there be a good run of fish on the coasts throughout the provinces of New Brunswick and Nova Scotia, the box mills will be kept with orders throughout the winter. At present writing the fishermen are meeting with good success.

Labor conditions are still very unsettled, and will probably continue so throughout the season. Mill men are finding it hard to man their mills to the full extent which means a shortage in the day's turnout. This seems to be the cry all over the province.

All logs on the St. John River have been driven to the booms by the last big rains, the water in the river at the present time being at freshet height. Many logs belonging to mills along the river above the boom limits have been swept away and carried into the booms, at a great loss to the owners as they will be forced to shut down their mills and sell their logs to parties here.

Active Trade at Montreal—Car Supply Short

Montreal, Aug. 26th.—(Special Correspondence of the Canada Lumberman).—In every direction one hears good reports of the lumber trade, and the outlook for the immediate present is very promising. All branches are participating in the excellent business, and some lines are very difficult to procure even at better prices than have been ruling lately. Quotations generally are firm, with shingles, clapboards and railway ties in active demand.

There are still complaints of the slow delivery of cars by the railways, and one company has put an embargo on receiving cars from another company, owing to the congested condition of the terminals. The Canadian Manufacturers' Association have asked shippers all over the country to expedite traffic as much as possible, as an exceptionally bad shortage in cars is expected in the fall, when the grain has to be moved.

Exports of lumber to Great Britain continue to be on a large scale, and prices are keeping up. Shippers would be better pleased if the cars came forward more promptly than they are.

News print mills have all they can do. The ground wood situation is improving, with the lowering of power streams in the paper-making districts of the Eastern States, and it is feared that there will not be sufficient ground wood in stock to be manufactured to take care of the extremely heavy requirements of the election campaign in the fall. Prices are $18 to $19 at the Canadian mill.

Sulphite is stronger than at the date of our last report, and now it is not so much a matter of price as of procuring the sulphite. This position will probably last for at least another year. One reason being that every country in the world is producing paper to its fullest capacity, thereby using the maximum quantity of chemical pulp. In addition very little new pulp has come on to the market during the past two years.

Brisk Business at the Tonawandas

The Tonawandas, N.Y., Aug. 22. (Special correspondence of the Canada Lumberman). The midsummer lull in the local lumber market is on the wane. Increased orders are reported and the fall rush of stock from upper lake ports has begun. From now until the season of navigation ends and snow and ice begin to tie up the yards, there will be activity in all lines of the local lumber industry. The election campaign isn't rippling even the surface of the lumber trade. Nobody seems to be worrying about who will be elected. It is taken for granted that all the bothering of big business has been done and that no matter who sits in the White House the next four years there will be plenty of prosperity. Salesmen who have felt the pulse of the buying public the last few weeks report a well grounded feeling of optimism for the outlook in building and in other lines that use lumber largely. There are few local dealers who are not looking forward to a resumption of prosperity. To show how strongly the Tonawandas are stocking up with lumber for a good time to come, it is only necessary to call attention to a fleet of boats scheduled to arrive here to-morrow with a total of 15,000,000 feet aboard. And this is only a part of one week's arrivals.

With the improvement in general business conditions has come a corresponding increase in prices. "I have seldom known so many inquiries to be afloat as during the last ten days," said a large local dealer to-day. "The market is decidedly strong all along the line.

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Shingles for instance are going simply out of sight. There has been an increase of nearly ten cents a day on shingles every day for the last ten days. A week ago I bought shingles in carload lots at $3.26 which I would have to pay $3.83 for to-day and the shingles are not a bit better quality. The demand is particularly strong on the better grades such as Clears and Star A's. The poorer grades are not yet affected. Hemlock is another item that is on the up-grade, as is also bevel siding. There is no sign of a break in the market."

Among the incorporations of interest locally is that of the Canadian-American Lumber & Pulp Company organized to deal in lumber and timber at Niagara Falls. The capital stock is $25,000 with the following directors: Mr. Uptegraff of Pittsburg, Pa.; James M. Uptegraff of New Brighton, Pa., and Thomas Uptegraff of Niagara Falls, N.Y. Business has already been begun at Niagara Falls.

Among the lumber concerns in the Tonawandas that are enlarging their plants is the R. H. Bennett Lumber Company of Main street. During the last six months, the plant has been doubled and buildings to the value of $50,000 have been erected. The Bennett Company took over the yard until recently occupied by the W. E. Kelsey Lumber Company on Main street. A large cement block stable was first erected to house the large number of mules which are used to cart lumber and building supplies from the Tonawandas to Buffalo. Later, a modern planing mill and moulding factory were built around the corner on Island street and at present a modern cement block dry kiln with a capacity of 40,000 feet is in course of construction.

Boston Lumber Trade Shows Good Volume

Boston, Mass., Aug. 23rd, 1912.

Editor Canada Lumberman:—

The general domestic market for lumber has improved. Prices have advanced a little and the volume of business has held well of late. The South American market has remained very dull until quite recently. It now shows some signs of recovery, as orders are being placed, and there is some inquiry.

While it would now seem quite likely that the Democratic party would be in power next year, and as it has always been our experience, judging from the past, that the business community is not particularly active and business is not very successful during the Democratic administration of the government, still, that outlook does not seem to have put any damper on the business during the summer or early spring.

While it would seem to the writer that a conservative course to pursue would be to go carefully for the next four or five months, it may be that the Democratic administration, if we have one, will be prosperous and that business will continue to expand. However, the writer feels that a due amount of caution should be exercised in making purchases for winter and spring consumption.

Yours truly,

SHEPARD & MORSE LUMBER COMPANY,
W. B. Shepard, President.

Steady Trade at Quebec

Quebec, Aug. 24. (Special correspondence of the Canada Lumberman): While the shipments of square timber and deals from this port to the old country are large there have been no recent sales of any consequence to report. In the outports, such as Matane, Riviere-du-Loup, Rimouski and Bersimis, there are quite a number of sailing vessels loading spruce deals and lumber for Buenos Ayres, Rosario, etc. Although freight rates are high, the demand for the above description of wood continues good in the ports above named.

Shipments of pulpwood and pulp from Quebec and outports continue to be very large, the United States being the chief market for the wood and some of the pulp, but the greater portion of the latter is being shipped to the United Kingdom.

At Stoneham, about twelve miles from this city new limits for pulpwood were opened last spring, and there are now about fifteen thousand cords cut there. This will be brought down to the river banks during the winter and be ready for shipment next spring.

Contracts are now being made for next year's supply of pulpwood. The demand is large, but prices are about the same as the present season, hand peeled being quoted at $7.50 per cord, and machine peeled at $9.25.

The large pulp mill which has been operation for some time at Jonquiere in the Saguenay district, has not not been able to supply the demand upon it. To meet this call, the Messrs. Price Bros. has erected another large mill in the vicinity and this will be in operation in a short time. The demand for lumber for building purposes in the local market is dull.

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EDGINGS

Ontario

The Coyne Lumber Company, Schreiber, Ont., have secured a provincial charter.

Peck & Wills, manufacturers of sash and doors, Belleville, Ont., recently suffered loss by fire.

The Spence Lumber Company, Limited, Seguin Falls P.O., Ont., have obtained a provincial charter.

The McAulffe Davis Lumber Company, Duke street, Ottawa, have purchased eighty acres on Russell Road and will erect a large factory and cottages for the workmen.

The Superior Match Factory, Owen Sound, Ont., have awarded the contract for the foundation and brick work of their factory to James C. Grier, 685 Second avenue west.

The Canada Furniture Company, Walkerton, Ont., are considering plans for building a large addition to their present plant. They are likely to be in the market for new machinery.

The London and Petrolea Barrel Company, Simcoe street, London, Ont., are reported to be in the market for a large quantity of white oak and other lumber suitable for manufacturing barrels and kegs. Mr. John Foristal is manager of the company.

The Dominion Bond Company have purchased control of the Toronto Paper Manufacturing Company, of Cornwall, the Barber and other interests having sold their shares. It is intended to make a public issue of stock, and also to improve the property of the company.

The Haight and Dickson Lumber Company, Limited, have been incorporated with share capital of $40,000, to carry on a business as sawmill proprietors and timber merchants in the province of Ontario. Head office is to be at Sudbury. Provisional directors are Chas. McCrea, Geo. J. Valin, Mary D. Flanagan, Arthur J. Manley and John S. Nicholls.

The Toronto Paper Manufacturing Company, Limited, has been incorporated with a capital stock of $1,000,000, with head office at Toronto, to carry on the business of pulp and paper manufacturers and deal in articles of wood. The incorporators are: Alfred Bicknell, G. B. Strathy, H. B. McKitrick, W. H. Walter, J. F. McGregor, C. W. Morley and W. R. Anderson, all of Toronto.

The Peterboro Lubricator Company has recently been purchased by Mr. Roland Wilson, of the Peterboro Machine Company, who will conbine the two factories under the title of the Peterboro Machine & Lubricator Company. The "Philadelphia" compressed air grease cup which this firm manufactures, is becoming known from coast to coast and is especially adaptable for use in sawmills.

The Lake Superior Paper Company, Limited, of Sault Ste. Marie, Ont., one of the affiliated interests of the Algoma Steel Corporation, have this season started operations on a large scale. In December last they took over the mills and limits of the Algoma Commercial Company, located at the Soo, and are cutting this season 26,000,000 feet of spruce and white pine. It is the intention in the near future to erect another sawmill of a larger and newer type to run in conjunction with the present mill. Ninety thousand cords of pulpwood per season is the capacity of the pulp mill department and the paper mill has a capacity of 200 tons per day.

Hon. Adam Beck, of London, Ont., who controls woodworking factories in Montreal, Hamilton and London for the manufacture of veneer, thin lumber and boxes, is arranging to merge them into one company under the name of the Beck Manufacturing Company, with a capitalization of $500,000. Another plant will be erected in Toronto on the corner of Wilton avenue and River street, at a cost of $60,000. In organizing the new company the co-operative principle will be adopted. The heads of departments, the managers, and employees who have been for a number of years in the company's service, will be given stock and have an opportunity to add to their holdings from time to time.

Eastern Canada

Durham Bros.' sawmill at Campbell Settlement, N.B., was recently destroyed by fire.

Shearer, Brown & Wills, Limited, 225 St. Patrick street, Montreal, have commenced the erection of a planing mill to cost $2,500.

The sawmill of Harrison & Hicks, Dalhousie Junction, N.B., was recently destroyed by fire The loss will be about $6,000, with no insurance.

The Meyer Thomas Company's box factory at Granby, Quebec, was recently destroyed by fire, the loss amounting to $100,000. It is reported that the company will rebuild.

G. A. Grier & Sons, Limited, Montreal, have added a dimension timber department to their sales yard, and are now selling Canadian spruce, hemlock and Georgia pine in dimension timber.

The Dalhousie Lumber Company, Dalhousie, N.B., are reported to have bought out the Gaspe Lumber and Trading Company, and it is reported that they will make extensive alterations to the present plant.

The mill of the Newville Lumber Company, at Newville, Nova Scotia, was totally destroyed by fire on August 23rd, together with 150,000 feet of lumber and 1,000,000 lath. It is understood that the mill will not be rebuilt during the present year.

A brush and broom factory to cost $200,000 is being erected at Fairville, a suburb to St. John, N.B. The owners are T. S. Simms & Company, Limited,

the president being Mr. Louis Simms, Union street, St. John. The Aberthaw Construction Company are the contractors.

Thieves entered the office of the McLaurin Lumber Company at Lachine, Que., on August 24th, and blew open the company's safe, after binding and gagging the night watchman. Fortunately they were only able to secure $60. No clue to the thieves has ever been found.

Reports from Pokiok Falls, N.B., state that a ground wood pulp mill will probably be erected there in the near future as Dr. A. C. Haggarty and Dr. R. E. Haggarty, of Ellsworth and Sedgwick, Maine, have been increasing their holdings and investigating the proposition in detail.

The sawmill owned by the Sydney Lumber Company at Dalhousie, N.B., was destroyed by fire on August 21st. The loss being $20,000. The saw, shingle and stave mills were completely destroyed and will be rebuilt. The sawmill will be replaced first. The company is in the market for new machinery.

Six per cent. mortgage bonds of the Rolland Paper Company, Limited, Montreal, to the value of $500,000, have been offered to the public. The company recently acquired the property of the Northern Mills, Limited, and now have two modern equipped mills. The plant of the Northern Mills, Limited, is to be enlarged at a cost of $200,000.

It is reported from Grand Falls, N.B., that the Grand Falls Power Company, of which Sir William VanHorne is president, have taken over the rights and privileges of the two rival companies at that point and that they will establish, at Grand Falls on the St. John River, a pulp and paper making plant, at a cost of between $5,000,000 and $7,000,000.

The sawmill belonging to the Sydney Lumber Company, at Dalhousie, N.B., was destroyed by fire on August 18th. The flames were discovered shortly after the mill had been closed down at 12 o'clock at night. The property included a saw, shingle and stave mill. One hundred men were thrown out of employment. The plant will be rebuilt immediately.

A report from Bathurst, N.B., states that another move has been made in the direction of opening up the pulp industry at that point. Those who are interested in the water-rights on the Nepisiguit River, held a meeting recently with the promoters of the proposed pulp mill. After the meeting it was stated that arrangements had been made which were satisfactory to both parties.

The Dorwin Falls & Improvement Company, Limited, have been incorporated with capital stock of $250,000, with head office at Montreal, to develop, operate, sell or lease timber limits or water powers, and to carry on a lumbering business in all its branches. The incorporators are G. W. MacDougall, Lawrence MacFarlan, Gregor Barclay, R. E. Moyse, and Ara Armstrong, all of the city of Montreal.

Reports from Montreal state that one of the largest pulp and paper enterprises ever launched in Canada is being worked out by the Labrador Pulp and Power Company, involving an increase of the capitalization of the company from $3,000,000 to $15,000,000. The proposition includes the development of the falls on the Hamilton River, which are only second in power to those of Niagara, and the erection of two large mills, one at Hamilton Inlet, and the other at Sandwich Bay, the combined output of which would be 150,000 tons of paper per annum.

Western Canada

The Traders' Lumber Company, Vancouver, B.C., have secured a provincial charter.

The Beaver Lumber Company, Limited, of Holmfield, Man., have sold their business to John Henderson.

The North American Lumber and Supply Company have bought the lumber business of R. G. Fletcher, Asquith, Sask.

Fire recently destroyed the Grand and Mounce Sawmill at Cumberland, B.C., throwing three hundred men out of employment.

The Raymond Birnie Lumber Company, Limited, Calgary, Alta., have changed the style of their firm name to Birnie Lumber Company, Limited.

The Canadian Pacific Lumber Company have commenced operations upon their new plant at Alberni, B.C. The plant will have a capacity of 100,000 feet per day.

The Atlas Lumber Company, of Edmonton, is erecting a number of large closed-in sheds and barns and other equipment necessary to carrying on an extensive business.

The Robinson & Lequime Lumber Company, Limited, are applying to the British Columbia Legislature for permission to change their name to the Western Pine Company, Limited.

The mill of the United Lumber and Shingle Company, at Nanoose, B.C., will be completed and in operation by the middle of September. The capacity of the mill will be 140,000 feet per day.

A. E. Watts, of Wattsburg, B.C., has bought the Cranbrook Lumber Company's mill, and intends re-erecting the plant in the midst of the timber north of Wattsburg. He has made provision for the transport of the rough sawn lumber by flume.

The sash and door factory belonging to Hatch Brothers, Fifth avenue and Cedar street, Vancouver, B.C., was destroyed by fire on August 15th, together with a considerable amount of lumber. The loss was approximately $40,000, and was only partly covered by insurance.

A large number of men have lost their lives on the Fraser River, to date. These men, who are employed at the different transcontinental railway camps, endeavor to float down the Fraser on log rafts. The violence of the current of the river breaks the raft however, and the men are swept away.

Word has been received in Edmonton that A. J. Carlson, an American, with large interests in the Dakotas and Nebraska, has acquired twenty wooden bridges and trestles, containing about 6,000,000 feet of timber on the canadian Pacific Railway Company's St. Mary's route to Macleod, Alta., abandoned in 1908, and will cut this into lumber. A sawmill will be erected near Lethbridge and thirty men employed. Mr. Carlson will also get about three hundred tons of iron out of the bridges.

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Adjustable. Reversible. Transformative. Made of Steel.

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We beg to acknowledge receipt of the two rules sent us on March 8th. We are very glad to state that we find these rules very useful and an economical aid in setting of sticker knives, in fact, our sticker man would be at a loss to get along without one.

Thanking you for your promptness, we are,

Yours very truly,

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These grades are being rapidly picked up. We have still a nice stock of last season's cut.

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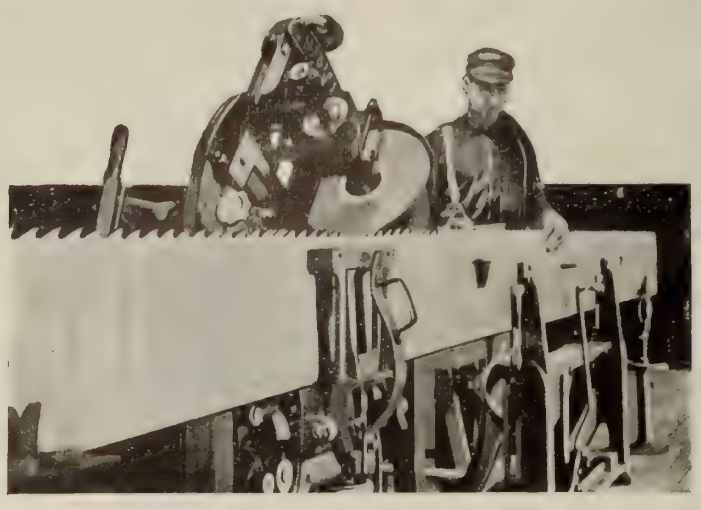

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Price of Fine Lots of 100 Acres, 20 to 50 cents per Acre

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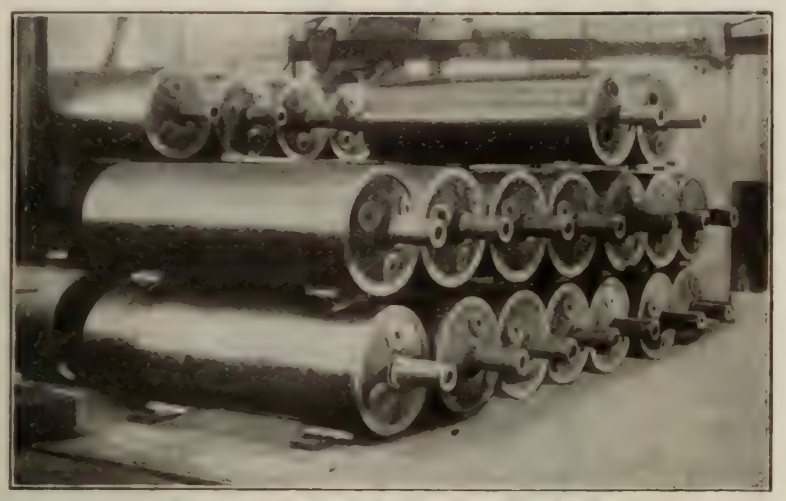

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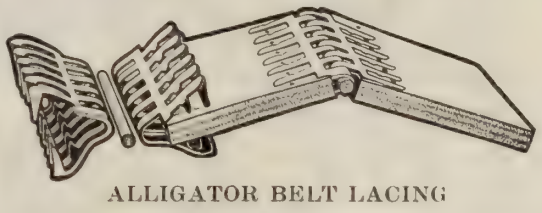

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The "SAW KING" Cross-Cut Saws have won exceptional favor throughout the trade by the good work they do, the hard wear they stand and their general reliability. These saws have stood the test of Camp and Mill and have proved their worth—their quality and design sets them far above the average and places them in a class by themselves.

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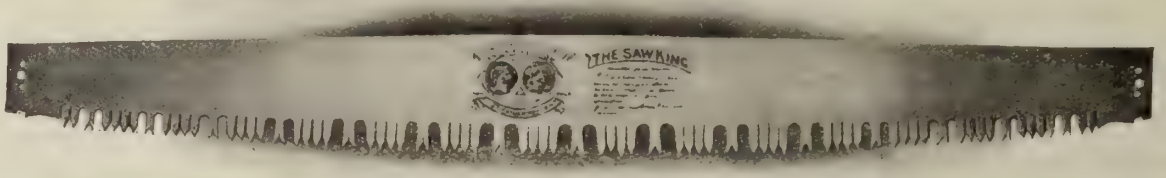

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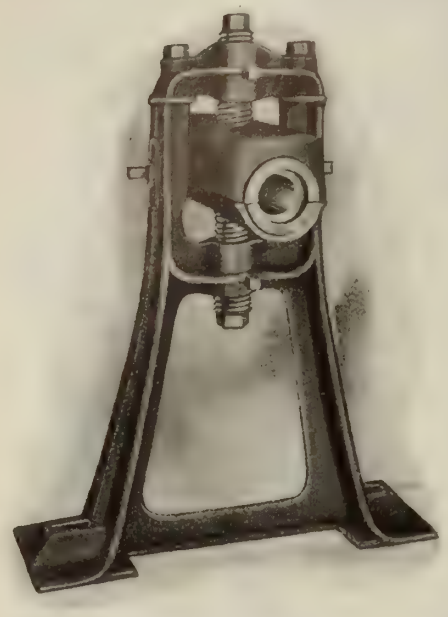

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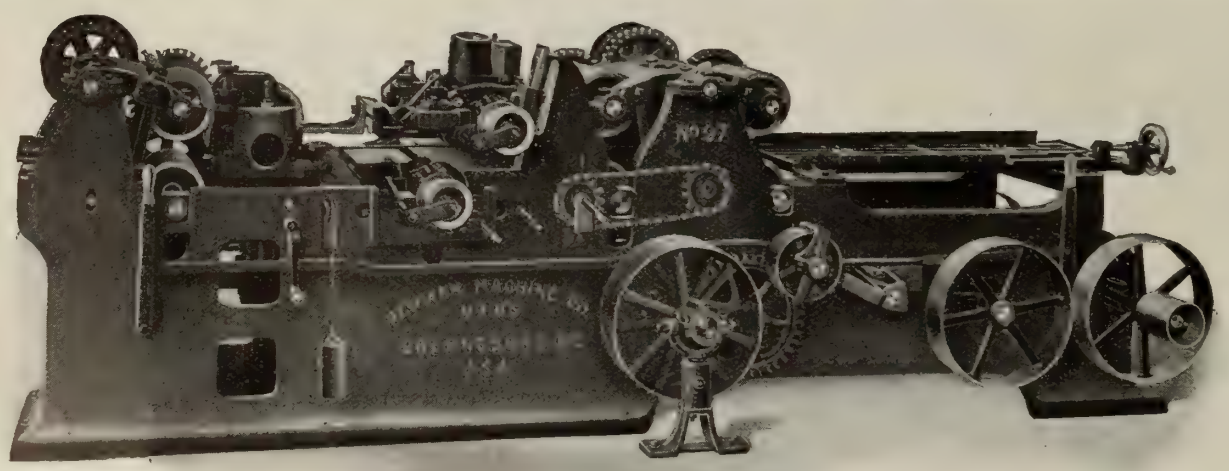

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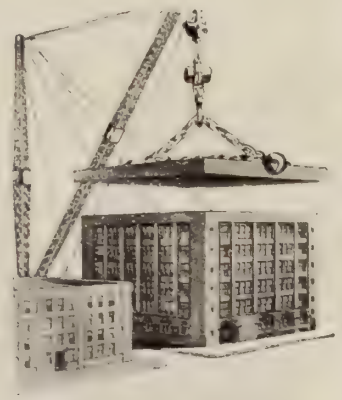

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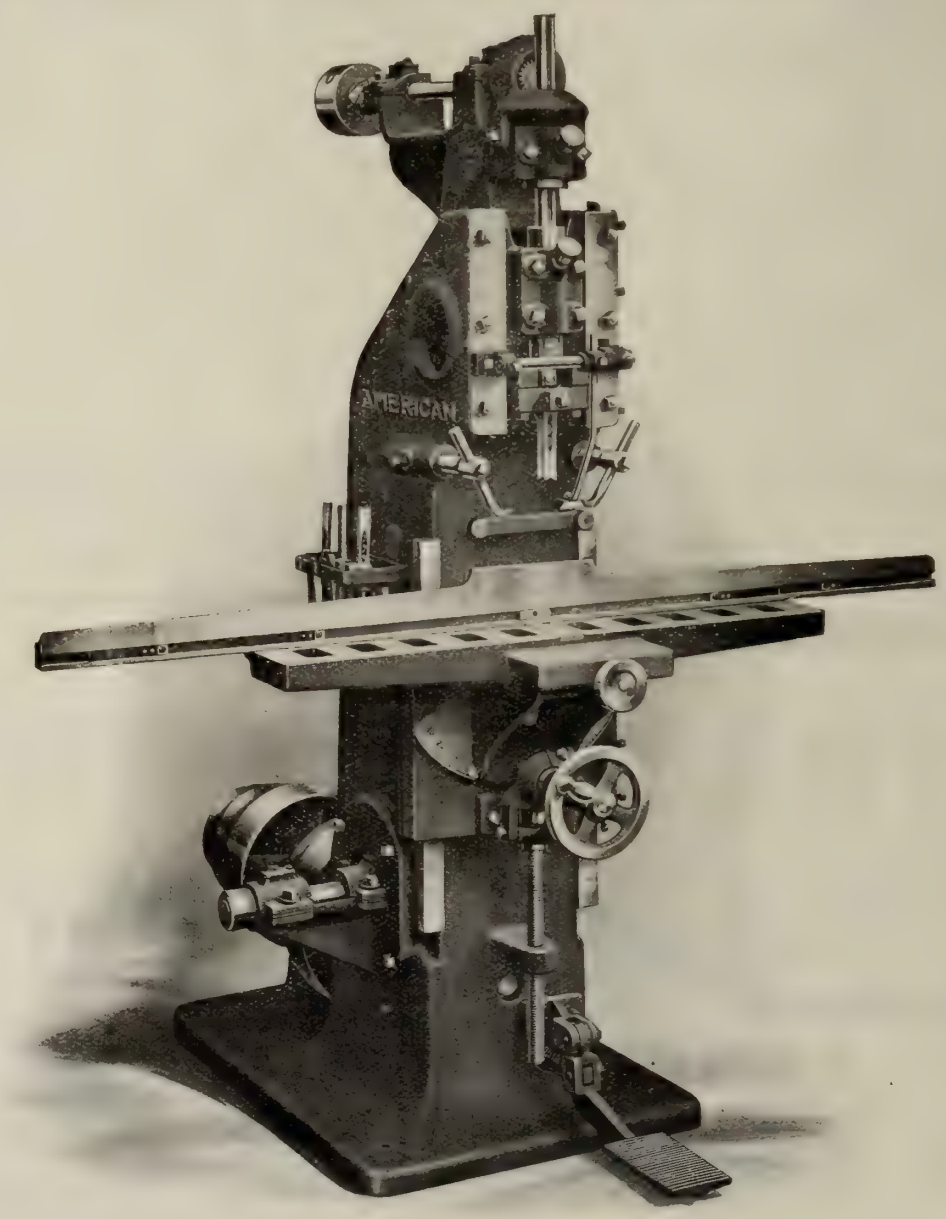

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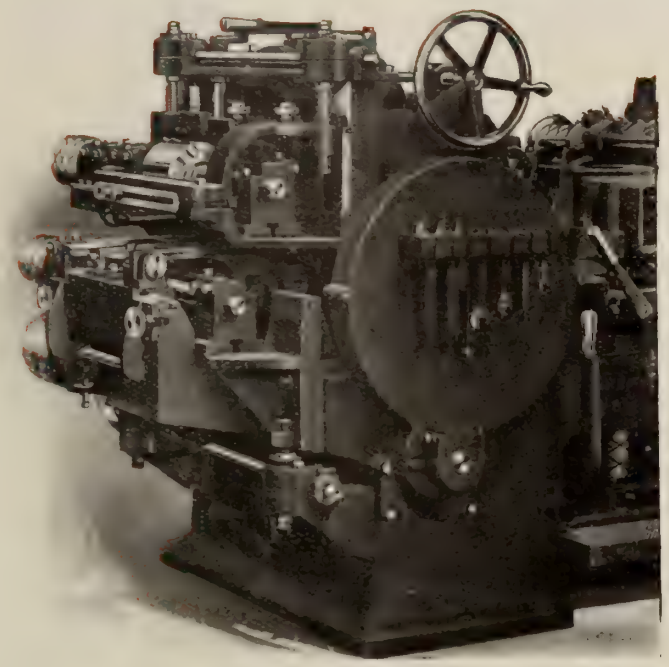

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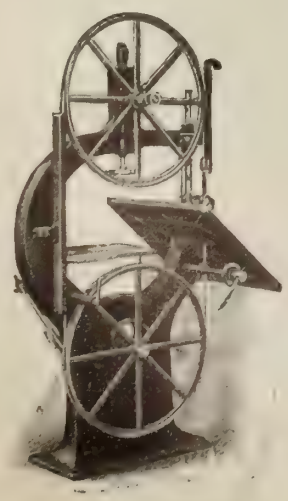


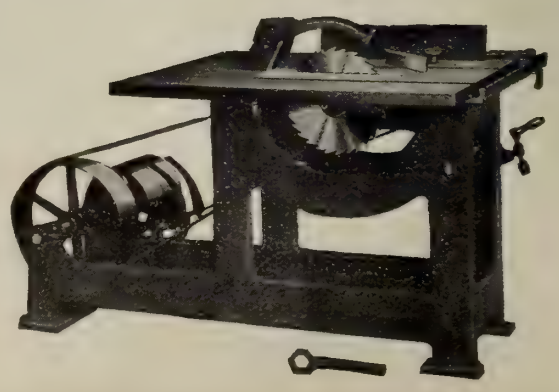
Silver's New Woodworking Machines

Saw Tables, Jointers, Swing Saws, Band Saws—tools of good, honest construction, newest improvements and conveniences; patterns fresh from the designers.

JOINTERS—8, 12, 16, 20, and 24-inch.
BAND SAWS—20, (foot or belt power) 26, 32, and 36-inch.
SWING SAWS—6½, 7, 7½ and 8-foot lengths
SAW TABLES—Two Styles

Silver's machines are high pressure machines. They will do your work and do it well, save you money and labor, suit you in sizes and in prices too.

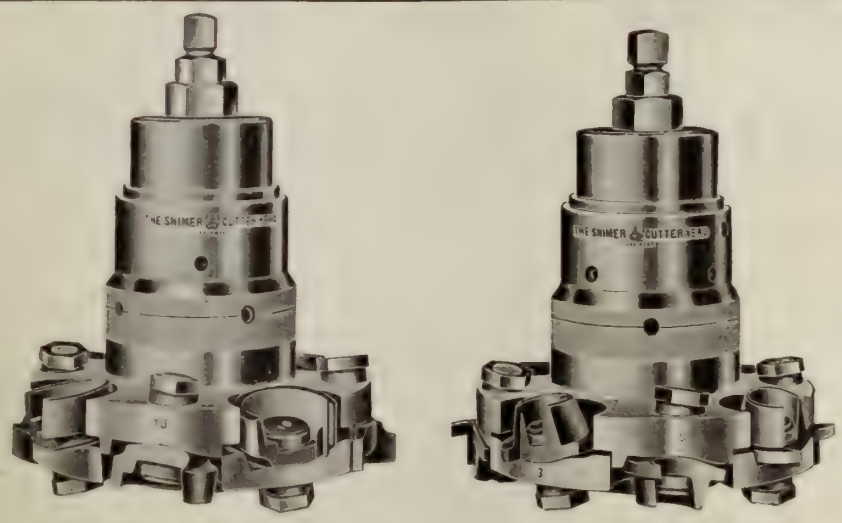
Post up on these tools. Ask for our 1911 catalogue and special prices at once.



THE SILVER MFG. CO.

375 BROADWAY **SALEM, OHIO.**

The Shimer Cutter Heads



The "Shimer Limited" Cutter Heads with Expansion, Fig. 627 and 628.
Price, for Flooring, $72.46 per set complete.

The Man After Results

in a planing mill or any kind of machine wood-working establishment should buy Cutter Heads which have ***given others results***—which have stood the "knocks" of matching tough, fibrous and hard lumber at fast feeds—that have been the means of favorably advertising the product of others and their facilities for turning out an order.

He should select tools suited to the particular class of work he intends to do. He should have them made interchangeable and fitted with all the time and labor-saving features he can get. He will then be sure of getting ***results at a minimum of cost.***

The value of a Cutter Head is judged by the results attending its use: the proportion of time it is out of commission while adjustments are being made, the length of time it will remain in good working order, and the dependence which can be placed upon it to get out "rush" orders. Delays are costly and annoying when a hurry job is being put through the mill, and these delays cut down the earning capacity of machines and the men who operate them. Cutter Heads that keep the machine going increase the daily output and lessen the cost of the product.

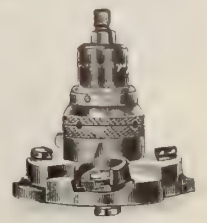
A battery of the Shimer Cutter Heads made upon the interchangeable plan puts any mill in position to handle quickly and economically a large and varied assortment of work, and the entire cost will soon be made up from the savings in labor and material.

Each Cutter Head illustrated on this page is made especially for the work it is to perform and is guaranteed to come up to our representation. Although we make the Heads specially for you and your work, they may be returned after 30 days' trial if they fail to make good.

Let us make you an estimate on a set of Fast Feed Heads for flooring, a pair of Double Ceiling or Ship Lap Heads, and a set of Jointer Heads. Or pick out the tools you prefer and figure up the prices given herewith. You will be surprised at the small amount of money necessary to thoroughly equip your mill.

Then give us order for them today.

Our Popular Cutter Heads

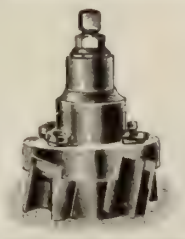


Figs. 202 and 203 are the leading tools, having Conical Duplex Bit Seats and The Shimer Cutter Head Expansion. Flooring Bits will work from 13/16 to 1½-in. in thickness with tongue and groove proportions expanded to suit.

Price, net, complete with one set of flooring Bits, the gauges for setting the Bits and wrench $40.95
Extra Bits for Flooring 11.44
Extra Bits for Ceiling 10.40

With 4 Bits to Each Head

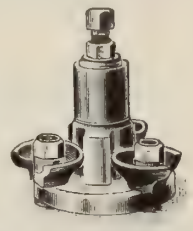
Jointer Heads



Figs. 54 and 55, with four Bits in line of work, shear the cut downwardly to insure a sharp and clean upper edge. They cut clean and free and are shipped out under our guarantee to give satisfaction.

Price, Heads, complete with Bits for 15/16 to 1¼-in., net only $31.20
Extra Bits 1½-in. face, the set 10.40
Extra Bits, 2-in. face, the set 12.48

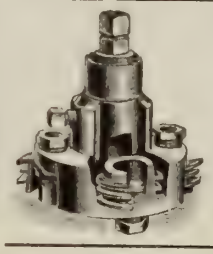
O. G. Batten Heads



Figs. 48 and 49 represent our best tools for this work, having 3 Bits in line of cut so arranged upon their seat inclines as to protect all but cutting edge against friction and wear.

Price, two Heads, complete with Bits, net only $31.98
Extra Bits, each, net 2.08

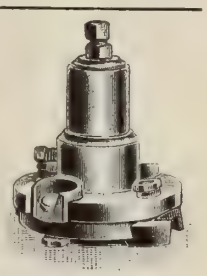
Double Ceiling Heads



Figs. 45 and 46, are made in solid section, steel forged, with Bits of special design to cut two tongues on one edge of board, and two grooves on opposite edge, to be re-sawed for two thin boards tongued and grooved. Very complete.

Price, with one set of Bits, net $40.94
Extra Bits, per set of (8) 16.64

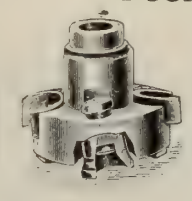
Ship Lap Heads



Figs. 38 and 39 are made of steel forgings, in solid section, designed especially for heavy duty. The bit seats have the latest improved slants to provide free cutting edges, and we sell them at the following low and net prices:

Heads with one set of Bits to work 15/16 to 1½-in. thick, net $34.84
Extra set of Bits 11.96

Door, Sash and Coping Tools



That save all the hand fitting. No changing of patterns, therefore, no trouble in framing door and sash parts when matched with the Shimer Cutter Heads.

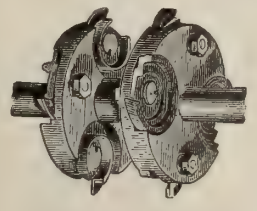
DOOR AND SASH HEADS

Fig. 82, solid flange, Door Head $10.75
Fig. 84, Expansion Door Head 13.35
Fig. 86, solid flange, Sash Head 9.75
Fig. 206, Expansion Sash Head 12.35
Bits to work 1-in. to 1¼-in. Doors, 4.. 7.28
Bits extra to work 1 to 1¼-in. Sash (2 Moulded Bits, $4.30; 2 Rabbeting Bits, $2.86) 7.16

COPE HEADS

Fig. 83, Cope Heads (2) $12.90
Coping Bits, each 1.43

The Shimer Box Board Matching Heads



make a uniform cut and close fit, as well after years of use as when new, with no friction upon the Bits. For thicker material the Bits can be expanded.

Price for two Cutter Heads to match ⅜ to ½ inch, $23.60.

We also furnish when desired a Yoke Mandrel with self-oiling boxes, boxed f.o.b. Galt, $11.05.

Samuel J. Shimer & Sons

Milton, Pa., U.S.A. **Galt, Ontario, Can.**

Maple Leaf Saws Are Good Saws

It is the Steel in a Saw that counts—
The way it is made is important.
But the way it is Tempered is
THE ESSENTIAL FEATURE

Improved Racer Maple Leaf Lance Tooth Cross-Cut Saws

No. 55 Narrow Straight Back Saws

Stand without a rival as the fastest and most efficient Saws in the world. For constant all day work they can't be beaten and their superiority consists in their excellent Temper. All Maple Leaf Saws are made of

RAZOR STEEL and tempered under our **SECRET PROCESS**

which refines and toughens the steel. This process gives the Saws a finer and keener cutting edge and they will hold it far longer than Saws Tempered by any other process

No. 44 Hollow Back Saws

None genuine that are not like the above cut with registered Trade Mark with the words "Improved Racer" and Maple Leaf.

We also Manufacture

Bands, Circulars, Shingle, Concave, Groving, Mitre, Dado-Head, Gang, Drag, Cross-Cut, Ice, Hand, Back, Butcher, Pruning, Buck, Saw Tools and Supplies. Large Stock of Saws in Western Canada at our Vancouver Branch

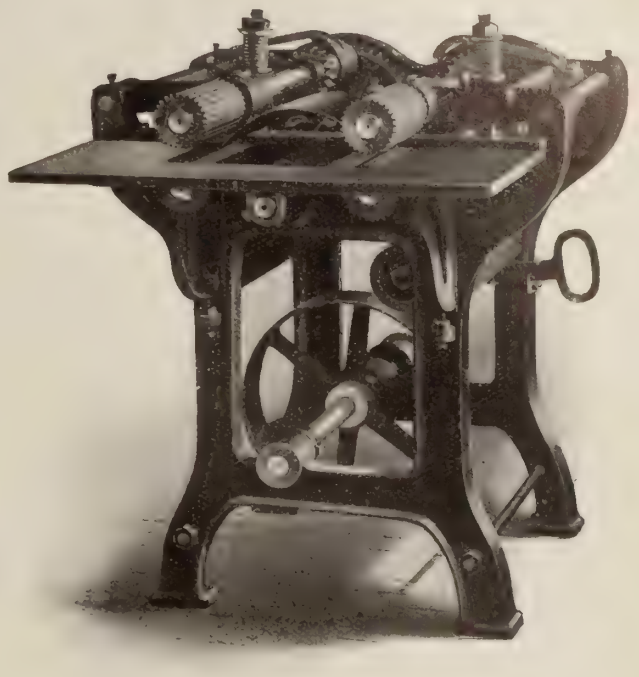
Write for our price lists and catalogues

Shurly-Dietrich Company, Ltd.

Galt, Ontario

and 1642 Pandora Street, Vancouver, B. C.

Self Feed Rip Saw



Self Feed Gang Saw

The Stuart Machinery Co., Ltd.
WINNIPEG, MAN.
Agents for Saskatchewan, Alberta and Manitoba

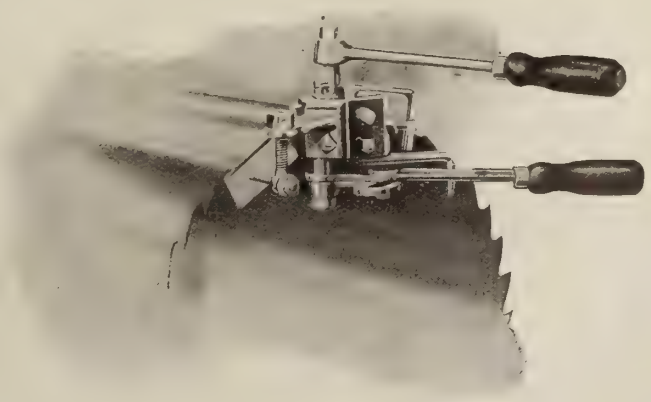
Write for catalogue. It illustrates many special Box Factory and Saw Mill machines

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.

THE FILING ROOM

Why don't you swage and shape your cylinder saws with a Hanchett Cylinder Swage and Shaper? Will cut more and better staves. Let us send you one on trial, to be returned at our expense if unsatisfactory.

Ask for Catalog No. 5 just off the press



Hanchett Cylinder Saw Swage

MAKERS

Hanchett Swage Works

Big Rapids, Mich., U. S. A.

"HANCHETT SWAGES DO GOOD WORK"

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:

1 inch No. 1 cuts and better	$60 00	65 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better..	67 00	72 00
1½-in. No. 2 C & B	50 00	52 00
2-in. No. 2 cuts and better ..	56 00	60 00
1½-in. No. 1, 2 and 3 Cuts ..	48 00	50 00
2-in. No. 1, 2 and 3 Cuts ...	48 00	50 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	23 00	25 00
1 x 6 common and dressing..	26 00	28 00
1 x 8 common and dressing ..27	00	29 00
1 x 10 common and dressing ..30	00	32 00
1 x 12 common and dressing..	39 00	41 00
1x10 and 12 mill cull stocks ..	21 00	22 00
1-in. mill cull sidings		18 50
2 x 10 common	27 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	22 50	23 50
1 x 10 inch box and common.	24 00	25 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	24 00	26 00
1-in. mill run shorts		18 00
1-in. dead cull sidings		14 00
1¼-in. flooring		28 00
1-in. mill run Norway		22 00
2-in. mill run Norway		25 00
Norway, c and cf 1-in.	33 00	34 00
Norway, c and cf 1½-in.	35 00	38 00
Norway, c and cf 2-in.	33 00	35 00
Spruce mill run	21 00	22 00
Spruce mill culls	15 00	16 00
Clear in. B.C. cedar, kiln dried	55 50	65 50

Douglas Fir

Dimension Timber up to 32 feet:

8, 10x10, 10x12, 1x14, 12x12, 12x014, 14x14, 14x16.....	34 00
8x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 14x18, 16x18 18x18, and 20x20	34 50
6x14, 8x14, 12x18, 18x20	35 00
6x16, 8x16, 10x18, 12r20, 14x20, anh 16x20	35 00
10 x 20	36 00
6 x 18, 8 x 18	36 50
6 x 20, 8 x 20	37 50

Lengths over 32 ft. take the following advances: 33 to 35 ft., 50c.; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5.

Fir flooring, eoge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		45 10
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 10
1½-in. No. 1 4-ft. pine lath..		4 50
1½-in. No. 2 4-ft. lath		4 00
1½-in. 32-in. pine		1 60
1½-in. No. 1 4-ft. hemlock lath		3 75
1½-in. mill run hemlock lath.		3 50
X pine or cedar shingles		1 05
XXpine or cedar shingles ...		2 25
XXX pine or cedar shingles ..		3 20
XX B. C. cedar shingles ...		2 30
XXX 6 butts to 2-in.		3 30
XXXX 6 to 23-16-in.		3 52
XXXXX		3 75

Hemlock No. 1:

1x4 & 5-in. x 9 to 16 ft.	16 50
1 x 6 6-in. x 9 to 16 ft.	19 50
1 x 8-in. x 9 to 61 ft.	20 50
1 x 10 and 12 in. x 9 to 16 ft.	21 00
1x7, 9 and 11 in. x 9 to 16 ft.	19 00
1-in. No. 2, 6-ft. to 16-ft. 2x4 to 12-in., 6-ft. to 16-ft.	14 50
2x4 to 12-in., 12 and 14 ft. ..	19 50
2x4 to 12-in., 18 ft.	22 00
2x4 to 12-in. 20 ft.	23 50
2 x 4 to 12-in., 22 ft.	25 50
2 x 4 to 12-in., 24 ft.	28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	15 50

Hardwoods—Per M. Feet, Car Lots

Ash white, 1sts and 2nds, 1½ and 2-in.	55 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	48 00
Ash, brown, common and better	37 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	55 00
Birch, 1sts and 2nds, 4/4	35 00
Birch, No. 1, com. and bet., 4/4	30 00
Birch, 1sts and 2nds, 6/4 and 8/4 ..	38 00
Birch, 1st and 2nds, 10/4 and 12/4 ..	42 00
Birch, 1sts and 2nds, 16/4	44 00
Basswood, 1sts and 2nds, 4/4	38 00
Basswood, No. 1, com. and bet., 4/4.	30 00
Basswood, No. 2 and 3, common ...	17 00
Basswood, 6/4 and 8/4, 1sts and 2nds	40 00
Basswood, 6/4 and 8/4, com. & bet...	37 00
Basswood, No. 2 common and better.	25 50
Soft elm, 1sts and 2nds, 4/4	35 00
Soft elm, No. 1 com. and bet., 4/4 ..	29 00
Soft elm, No. 2 and 3, common	16 00
Soft elm, 6/4 and 8/4 1 and 2	38 00
Soft elm, 3-in. 1sts and 2nds	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4 ..	50 00
Rock elem, No. 2 com. & bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4 31	00
Soft maple, com. and better, 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	34 00
Hard maple, 1sts and 2nds, 4/4	34 00
Hard maple, common and better, 4/4.	27 00
Hard maple, 12/4 & 16/4, 1sts & 2nds.	43 00
Red oak, plain, 1sts & 2nds, 4/4...	55 00
Red oak, plain, 1sts & 2nds, 6/4 & 8/4	60 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	65 00
White oak, plain, 1sts and 2nds, 4/4..	55 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	60 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	70 00
White oak, ¼ cut, 1sts & 2nds, 4/4..	83 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	87 00
White oak, ¼ cut No. 1 common ...	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up $53	00	55 00
1¼-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up ..	40 00	45 00
Pine good strips:		
1-in.	40 00	44 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	50 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	38 00	40 00
1-in. x 4-in. to 6-in.	30 00	35 00
1¼-in. and 1½-in.	45 00	50 00
2-in.	48 00	52 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings ..	33 00	35 00
Pine, No. 1 dressing strips ..	26 00	31 00
Pine, No. 1 dressing shorts ..	22 00	26 00
Pine. 8 s.c. and better, 12 ft. to 16 ft.	23 00	24 00
Pine, 7 up s. c. siding 1-in....	22 00	25 00
Pine s. c. sidings 1½ & 2-in...	26 00	30 00
Pine, s. c. strips 1-in.	17 00	19 50
1¼, 1½ and 2-in.	22 00	24 00
Pine, s.c. shorts, 1 x 4	20 00	21 00
Pine, s.c. and bet. 1x5	21 00	22 00
Pine, s.c. and bet. 1x6	23 50	25 00
Pine, box boards:		
1"x4" and up 6'-11'	13 00	14 00
1"x3" to 6", 12'-16'	15 00	16 00
1"x7" and up 12'-16'	16 00	17 00
Pine shorts 6'-11' 1"x10"....	20 00	21 00
1x8 and 9 No. 1 barn	25 00	27 00
O. culls r & w p	10 00	12 00
Red Pine log run,		
mill culls out, 1-in.	14 00	16 00
mill culls out, 1¼-in.	16 00	18 00
mill culls out, 1½-in.	17 00	19 00
Mill run Spruce:		
1"x 4" and up, 6'-11	14 00	15 00
1"x4" and up, 12'-16'	16 00	17 50
1"x9"-10", & up, 12'-16'...	18 00	19 00
1¼"x7" 8-9" & up, 12'-16'	18 00	20 00
1¼"x10" and up, 12'-16' ..19	00	20 00
1½"x7" & 2"x12" & up, 12'-16'	24 00	25 00
Spruce 1-in. clear (fine dressing and B)	24 00	27 00
Hemlock 1-in. cull	10 00	12 00
Hemlock 1-in. log run	13 00	14 50
Hemlock 2x4, 6, 8, 10, 12/16'	14 00	16 50
Tamarac	13 00	15 00
Basswood log run, dead culls out	20 00	22 00
Basswood log run mill culls out	24 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
Pine, s.c. and better, 1x7	21 50	23 00
Pine, sc. and better, 1x8 23	00	25 00
Pine, s.c. and better, 1x9	23 00	25 00
Pine, s.c. and better, 1x10 ...	25 50	27 00
1 x 10 No. 1 barn	30 00	33 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	20 00	22 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	14 00	15 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	11 00	13 00
Lath per M:		
No. 1 white pine 1⅜-in. x 4-ft.	3 75	4 00
No. 2 White Pine	3 00	3 25
Mill run white pine	3 25	3 50
Spruce, mill run 1½-in.	2 75	3 00
Red pine mill run	2 75	3 00
Tamarac mill run	1 25	2 00
Basswood, mill run	2 00	2 50
Hemlock, mill run	1 75	2 25
32-in. lath	1 25	1 75
Pine Shingles		
xxxx, 18-in.	3 50	4 00
Clear butt 18-in.	2 50	3 25
xx, ...	1 50	1 75
White Clear Shingles:		
xxxx, 18-in.	4 00	4 25
Clear butt, 18-in.	2 50	3 00
18-in. xx	1 60	1 85
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

	cts.	
First class Ottawa waney, 18-in. average, according to lineal	85	90

Oak—Michigan and Ohio

By the dram, according to average and quality	62	67

Elm

By the dram, according to average and quality, 40 to 45 feet	80	83
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash

13 inches and up, according to average and quality 25 30

Average 16 inch 30 40

Birch

14 inch	18	20
15 inch	22	24
16 inch	26	28
18 inch	32	30

Quebec Spruce Deals

	Per M.	
12 feet and up x 3 x 9 and up	18 00	19 00
Oddments	15 00	16 00
Boards, 1 and 2 in.	15 00	16 00

Birch Planks

1 to 4 in.	16 00	17 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	54 00
1 in., 8 in. and up wide	67 00
1¼ and 1½ in. and up wide	69 00
2 in. and up wide	72 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	67 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	47 00
1¼ in., 8-in. and up wide	57 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½-in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	48 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide...	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	22 00
1-in. x 5-in.	24 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	30 00
1-in. x 12-in.	35 00
1-in. x 13-in. and up	35 00
1¼, 1½ and 2-in.	32 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch 21	00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	20 00	22 00
No. 2, 1¼, 1½, 2-in.	17 00	21 00

Mill Culls

Mill run culls, 1-in.	16 00
1, 1¼, 1½ and 2-in.	18 00
No. 2 14	00 15 00

Lath

No. 1, 32-in. pine	1 50
No. 2, 48-in. pine	3 75
No. 3, 48-in. pine	3 00
No. 1, 48-in. pine	4 25
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft	8 ft	10 ft	14x16 ft
2 x 4	14 00	17 00	20 50	18 50
2 x 6	16 50	17 00	20 50	18 50
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch $18	50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Dimensions, S. 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
.....	27 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine mixed widths	20 00
No. 4 common pine, mixed widths ..	14 50
No. 5 common pine, mixed widths .. .	10 00

SHINGLES

XXX B. C. Cedar	$2 90
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00

(Continued on page 136)

DISSTON
Quality Tells

The Disston Brand SAWS, TOOLS and FILES, by their efficiency and lasting qualities soon repay their cost and become profit earners.

Henry Disston & Sons

INCORPORATED

Keystone Saw, Tool, Steel and File Works

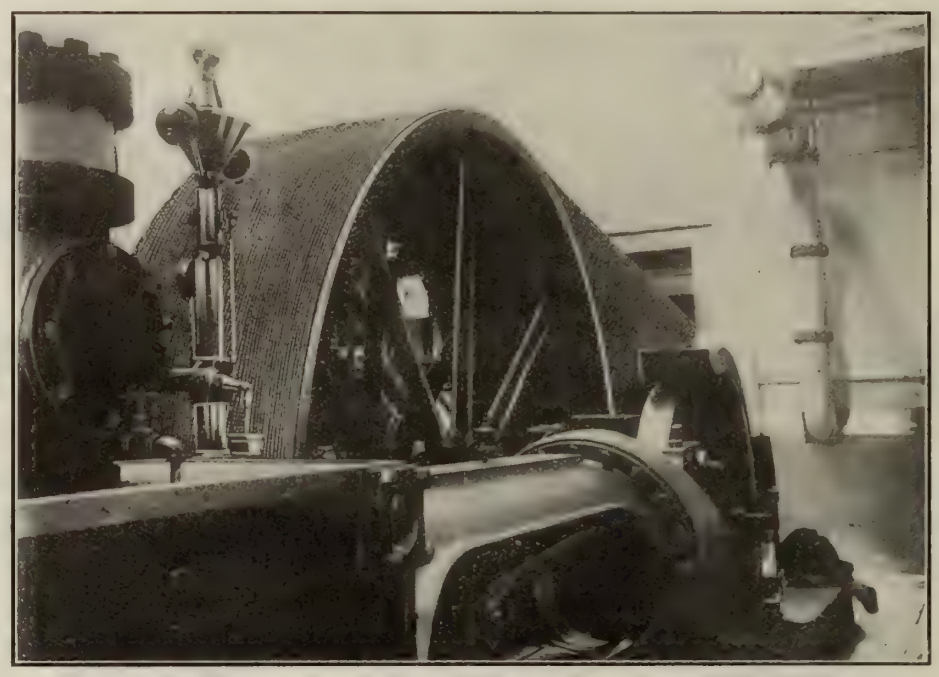
ESTABLISHED 1840

PHILADELPHIA, Pa.

BRANCH HOUSES { Chicago, Boston, Cincinnati, New Orleans, Memphis, San Francisco, Seattle, Portland, Spokane, Toronto, Vancouver.

Yours for Better Belting "Leviathan"

Main Drives a Specialty



60" x 10 ply. 170 ft. long transmitting 1000 h.p. 24 hrs. service per day since 1897

Belting Service Guaranteed

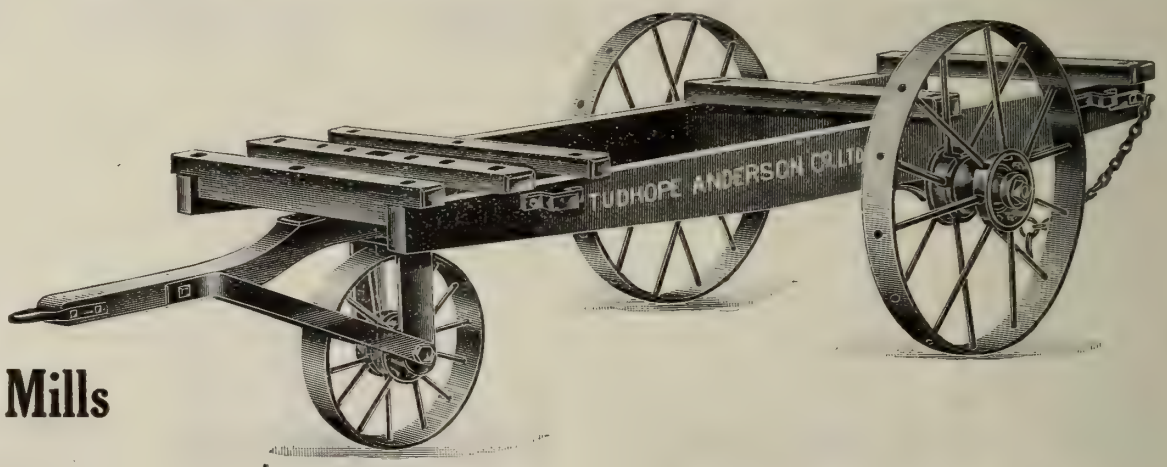
Main Belting Company of Canada, Limited

Montreal and Toronto

Three Wheel Lumber Cart

with Wide Tire Steel Wheels

Used in trains or singly for platform work.



Dump Carts for Saw Mills

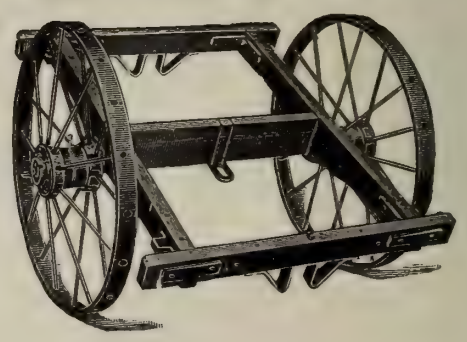
with Wide Tire Steel Wheels

In ½, ¾ and 1 Cord Capacity—extra strong of thoroughly seasoned hardwood and bolted throughout.

Detachable Lumber Trucks

with Wide Tire Steel Wheels

for Saw Mills, Planing Mills, Lumber Yards, etc.



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Successors to TUDHOPE-KNOX CO., LIMITED

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Ontario and Quebec

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SPECIAL RATES TO LUMBERMEN

Lumber Camp Ranges and Heaters

All Kinds of Stoves for Large or Small Camps

Our stoves are specially designed to meet all requirements of camp work.

We know exactly what is necessary and desirable in this class of stove.

We put into all our stoves the best of material and workmanship coupled with the best of expert experience.

The 'Leader Range' for coal and wood, shown in this cut is specially adapted to Lumberman Camps, Boarding Houses, Hotels and Railroad Construction Camp Work. We also make this Range with side hinge doors.

It is large, heavy and strongly built. Has good oven space and large heating surface. When a good, solid, reliable stove is wanted the 'Leader' will give satisfaction.

Write for our catalogue.

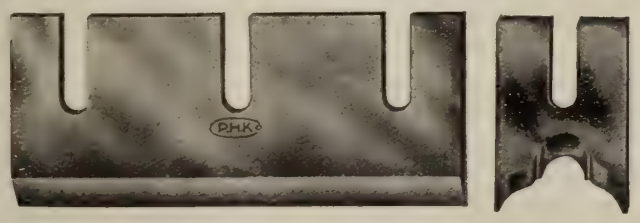
NO. 10-36A SIX HOLE LEADER RANGE AND RESERVOIR

ADAM HALL, Limited - Peterborough, Ontario

Manufacturers of Ranges, Heaters, etc., for Lumber Camps, Hotels, and Railway Construction

The Peter Hay Knife Co., Limited

GALT, ONTARIO



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Machine Knives, Circular Cutters and Mortise Chisel

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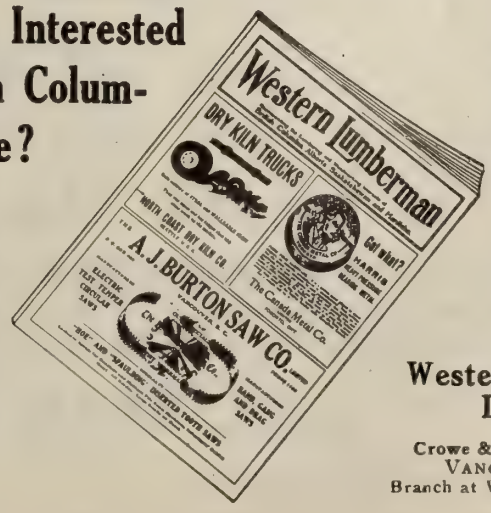

The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.

There is undoubtedly a big market for Mill Equipment of all kinds. Let us Demonstrate our Advertising service. We please others, we can please you.

Western Lumberman

Crowe & Wilson Chambers
VANCOUVER, B. C.
Branch at Winnipeg

The Rat Portage Lumber Co., Ltd.

With Mills at Winnipeg, Man. Vancouver, B. C. Harrison River, B. C. Kenora, Ont. Rainy River, Ont. and Banning, Ont.

Manufacturers of

Lumber, Lath, Shingles, Sash and Doors

And all kinds of Woodwork and Interior Finish. Also Box Shooks and Packing Cases. White and Red Pine Lumber, Maple Flooring, Hardwood Lumber, Turned and Band Saw Work, Cedar Posts and Poles, Tamarac, Piling etc.

ADDRESS HEAD OFFICE **The Rat Portage Lumber Co., Limited - Winnipeg, Man.**

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We manufacture and carry a complete stock of wire rope for all requirements.

Alligator Ropes—Haulage Ropes—Ballast and Wrecking Ropes
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Blocks — Clips — Thimbles — Shackles, Etc.

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Strong
Waterproof
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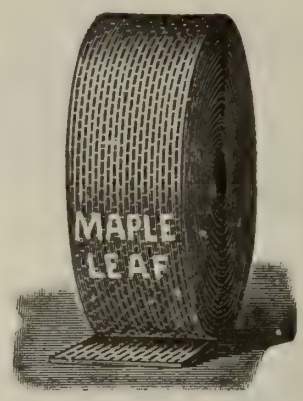

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¶ It costs only half as much as leather and 25 per cent less than good rubber belting.

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It is Better to Buy

the best; this applies to anything one needs, but especially do you require

Good Machinery and Supplies

The best is none too good, at any time, and while it perhaps costs a little more at the start, it is the cheapest in the end. The price paid for a cheap article, is probably not only all it is worth, but a great deal more, so it is wiser to get the best,

Than to Wish You Had

Think it over, then send to us.

AUSTEN BROS., Limited, Halifax, N.S.

An Opportunity to Better Your Investment

If you are in the market for a good, safe investment, and one having as well unlimited possibilities, write for information regarding the stock of the

Lumber Vulcanizing Corporation of Canada, Limited

This is not Treasury stock as the Company is not offering any of its shares.

This Company owns the Canadian Rights for the

"Howard" Vulcanizing Process

For Drying and Preserving Lumber in a Day Direct from the Saw

(Incorporated under the Dominion Companies Act.)

CAPITALIZATION, $1,000,000 SHARES, $100 EACH

(ALL ORDINARY SHARES)

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What the "Howard Vulcanizing Process" Does

Dries lumber in a day direct from the saw. Improves quality of all lumber. Increases the crushing strength. Increases the transverse strength. Reduces the green weight 30% to 45%. It materially prolongs the life of wood. Emphasizes and beautifies natural grain of the wood. Makes fit for commercial use woods not otherwise merchantable. Eliminates the necessity of maintaining heavy stocks of lumber, thereby saving heavy interest charges, insurance and material loss by deterioration.

The above results are accomplished with the refuse of the mill

To-day the Saw Mills, Railroads, Telegraph, Telephone and other Constructing Companies the world over, are looking for an economical process which will quickly dry direct from the saw the better grades still remaining and also harden, preserve and make merchantable the softer and inferior woods. This the "Howard" Vulcanizing Process accomplished.

We have only a limited amount of this stock for sale at a price which we consider very attractive. Call and see us or write.

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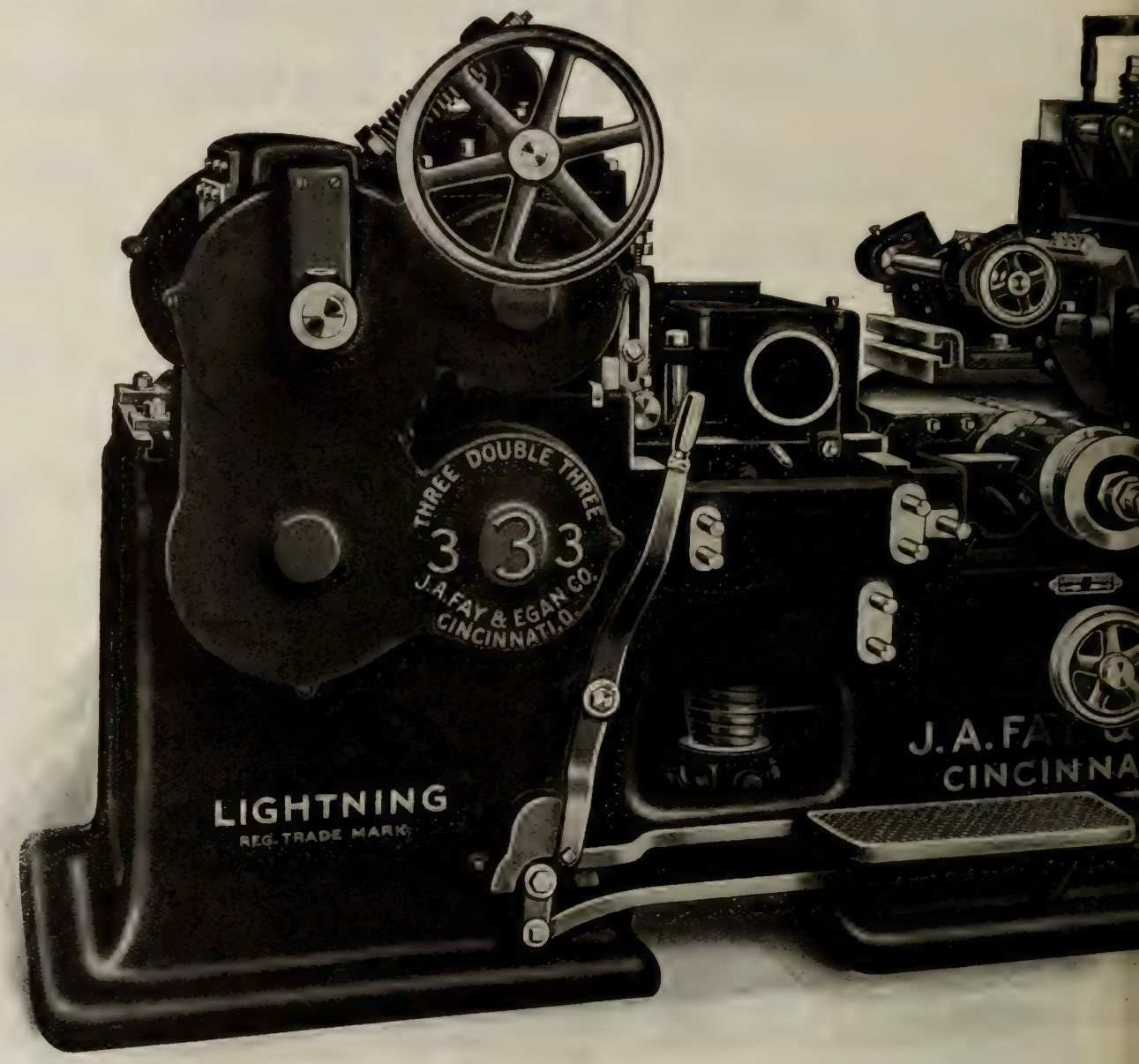


You Can Reduce the Cost of Planing and Raise the Grade 10 to 30% on a FAY-EGAN "LIGHTNING"

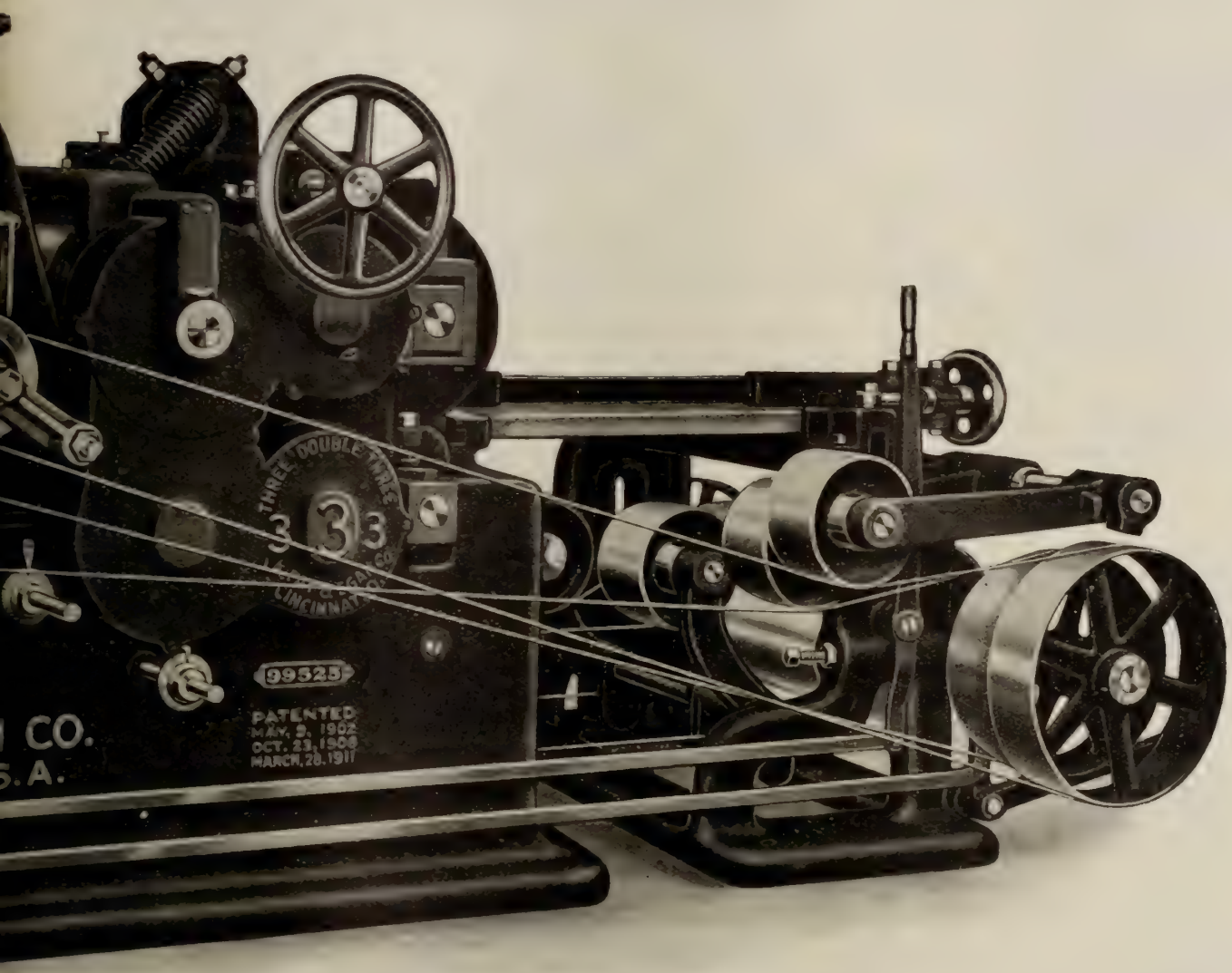
—sounds strong, doesn't it? but remember, this statement is being made by a company which has been building Woodworking Machinery for 82 years, and is now willing to stake its reputation among the mill men of Canada on the No. 333.

—its truth is being demonstrated daily in the mills now using 333's and by the fact that mill men who know are selecting it above all others.

—one of the world's largest planing mills and box factories is in El Paso, Texas, and after a most searching investigation of planers and matchers, recently put in five (5) Fay-Egan 333's.—why then, continue to run two, or even

Write for our new Catalog No. 86 illustrating and describing

J. A. FAY & EGAN CO., 465-485 W.



Matching Your Lumber 40 to 50% and No. 333—

three machines with an operator for each, when one 333 will do as much work and in addition give you a higher grade of lumber?

—you can easily afford to put in a 333, because the original investment is not heavy, and the great savings it will effect in time and labor costs, plus the higher price realized on your product, will more than pay for the change in a short time.

—we want you to know about the 333, to realize what a great planing mill machine it is, and without obligation on your part, invite your request for further information, and samples of work done at 200 ft. per minute.

a complete line of woodworking machinery—free upon request.

FRONT STREET, CINCINNATI, OHIO

CURRENT LUMBER PRICES—Continued

No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00
No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	46 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	30 00
No. 2 Barn 1 x 10	32 00
No. 3 Barn 1 x 6 and 8	23 00
No. 3 Barn 1 x 10	25 00
Box 1 x 6 and up	22 00
Box 1 x 10	23 00
Box 1 x 12	25 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

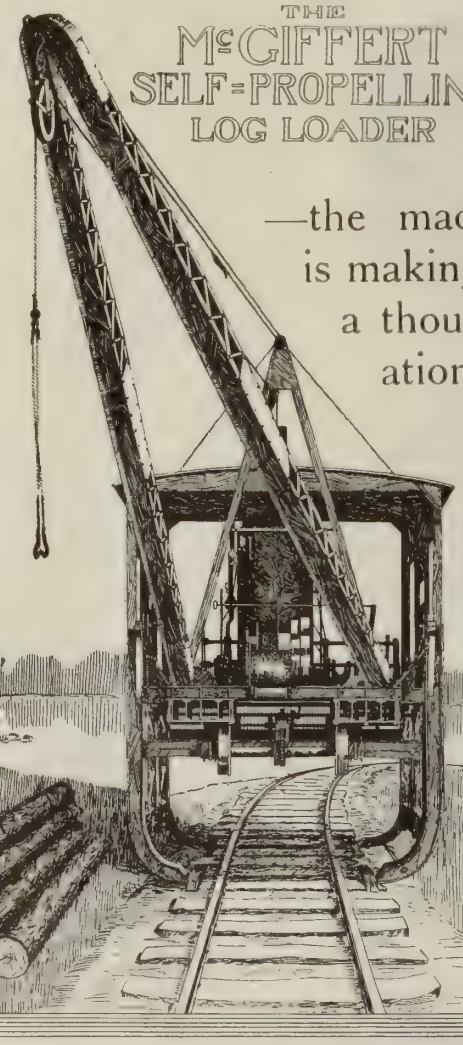
White Ash		
1st and 2nd, 1 inch	40 00	42 00
1¼ to 2 inch	44 00	46 00
2½ to 4 inch	48 00	54 00
Strips	22 00	24 00
Common and culls	14 00	22 00
Black and Brown		
1st and 2nd, 6 inch up	40 00	42 00
Common good culls	14 00	20 00
1st and 2nd 6 inch and up, red	40 00	42 00
1st & 2nd, white, 6 in. & up	30 00	32 00
Common and good culls	16 00	18 00
Elm		
1st and 2nd, rock, 6 in. and up	34 00	38 00
Common and culls	16 00	20 00
1st and 2nd, soft, 6 in. and up	28 00	32 00
Common and culls	13 00	18 00
Maple		
1st and 2nd hand	26 00	28 00
Common and culls	14 00	22 00
1st and 2nd, soft	26 00	28 00
Common and culls	14 00	22 00

BOSTON, MASS.

White pine uppers, 1 to 2 in.	$99 00	100 00
Selects, 1 to 2 inch		90 00
Fine common, 1 in.		72 00
Fine common, 1¼ to 2 in.	74 00	75 00
No. 1 Cuts 1 in.		45 00
No. 1 Cuts 1¼ to 2 in.	58 00	60 00
No. 2 Cuts, 1 in.	35 00	37 00
No. 2 Cuts, 1¼ to 2 in.	45 00	48 00
Barn Boards, No. 1, 1 x 12	50 00	52 00
No. 1, 1 x 10		38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12		43 00
No. 2, 1 x 10	35 00	37 00
No. 2, 1 x 8	34 00	35 00
No. 3, 1 x 12	33 00	34 00
No. 3, 1 x 10,	28 00	29 00
No. 3, 1 x 8	28 00	29 00
Canadian spruce boards	23 00	24 00
Spruce, 10 & 12 in. dimension	26 00	27 00
Spruce, 9 in. and under	"	25 00
10 and 12 in. random lengths, 10 ft. and up	24 00	25 00
2 x 2, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3x4 random lengths, 10 feet and up	20 00	22 00
All other random lengths, 7" and under, 10 ft. and up	21 00	22 00
5 inches and up merchantable boards, 8 ft. and up, p 1s		19 00
Vermont spruce boards, matched	22 00	23 00
1 x 2 and 1 x 3 furring, p 1 s clipped and bundled	19 00	21 00
1½-in. spruce laths	4 00	4 10
1½-in. spruce laths		3 60

New Brunswick Cedar Shingles		
Extras	$3 60	$3 75
Clears	3 25	3 40
Second clears		2 75
Clear whites		2 30
Extra 1s (Clear whites out)	1 45	2 25
Extra 1s (Clear whites in)	1 50	1 60
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 50	4 00
Red Cedar Eurekas, 18-inch. butts to 2-in.		4 20
Red Cedar Perfection, 5 butts to 2¼		4 75
Washington 16-in. 5 butts to 2-in. extra red cedar		3 50

THE McGIFFERT SELF-PROPELLING LOG LOADER



—the machine that is making good on a thousand operations.

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International

Preparations for Horses are all sold on a Spot Cash Guarantee

Let us figure on furnishing you the following supplies for the coming season.

International Stock Food
We guarantee that your horses will do more work and keep in better order on less feed if they get International regularly.

International Silver Pine Healing Oil
Especially recommended for Sores, Bruises, Kicks, Inflammation and all flesh wounds.

International Worm Powder
Will quickly expel all kinds of worms.

International Distemper Cure
For Coughs, Colds, and Distemper.

International Colic Cure
Guaranteed to cure Colic in ten minutes.

International Compound Absorbent
Greatest Curb cure on Earth.

International Gall Cure
Cures while horses work or rest.

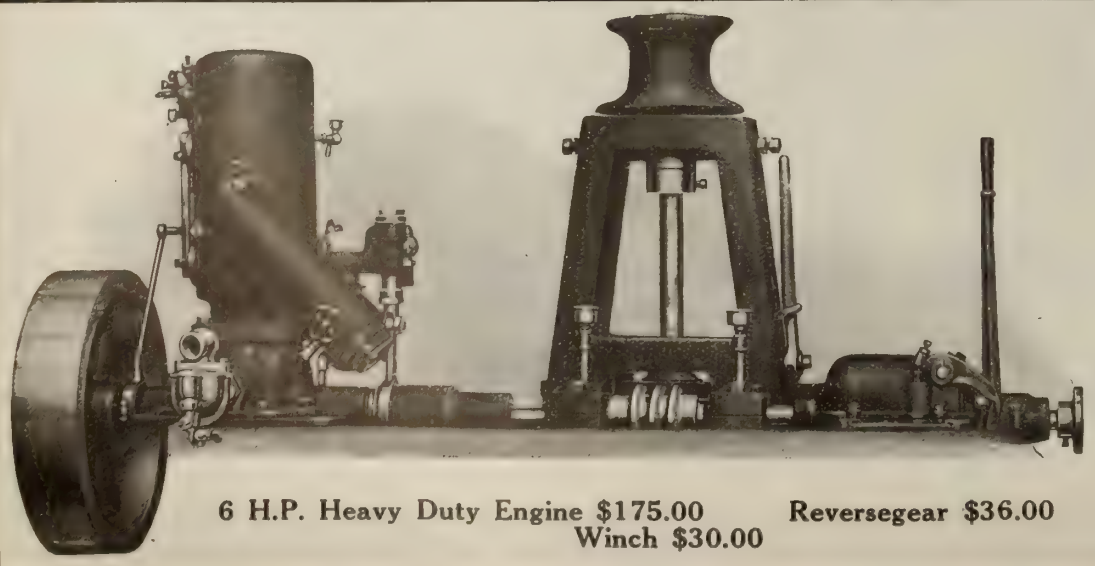
International Foot Remedy
Cures Foot diseases, keeps the hoof soft, elastic and tough

International Harness Soap
Gives new life to old harness.

All our goods are guaranteed to give satisfaction.

Write for Special Prices

International Stock Food Co., Limited
Toronto, Ont.



6 H.P. Heavy Duty Engine $175.00 Reversegear $36.00
Winch $30.00

River Driving Costs

will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25′ punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. Machinery $205.00. Complete punts $375.00. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 H.P.

Adams Launch and Engine Co.
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ENGINES and BOILERS

OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

We cater specially to the lumbering industries

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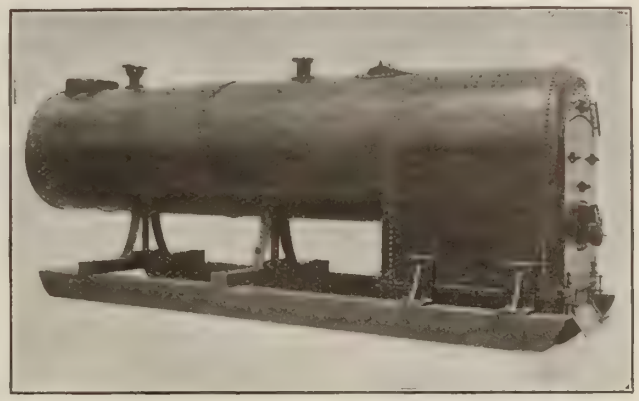


Locomotive Boiler on Skids

RUBBER GOODS
FOR LUMBERMEN

Belting—Our long experience in the making of Rubber Belts enables us to specialize on this line. "Monarch," "Red Strip" and "Lion" are our leading brands for power transmission. (Write for Booklet B-1.)

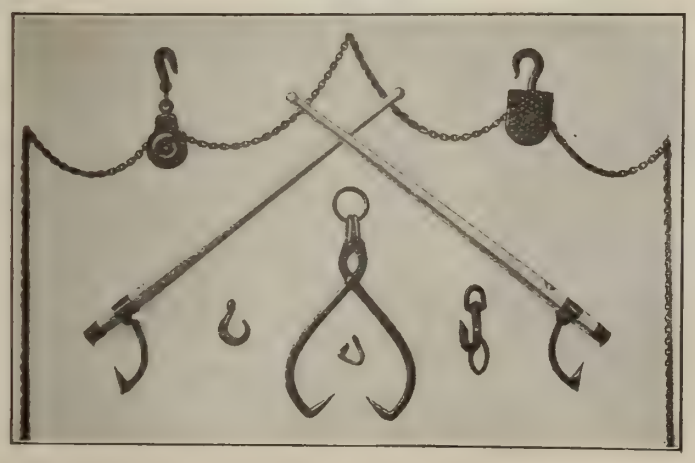
Packings—"Redstone" High Pressure Sheet Packing has proved by test that it will outlast any other similar packing on the market. We make Spiral and Ring Packings, etc., that are equally reliable. (Booklet P-1.)

Hose—for Steam, Water, etc., etc., in various grades, made especially to give satisfactory and economical service under different conditions. (Booklet H-1.)

Fire Hose—One or more of our twenty brands of Fire Hose will be found, not only in the best equipped Factories, Mills, etc., but in almost every Fire Department in the Dominion. (Booklet H-1.)

The Gutta Percha & Rubber Mfg. Co. of Toronto, Limited

TORONTO MONTREAL HALIFAX WINNIPEG CALGARY VANCOUVER



When ordering from your Jobber specify

Pink's Lumbering Tools

and if they cannot supply them order direct, and you will get the best tool made

The Thomas Pink Co. Limited

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Manufacturers of the best line of Lumbering Tools in Canada

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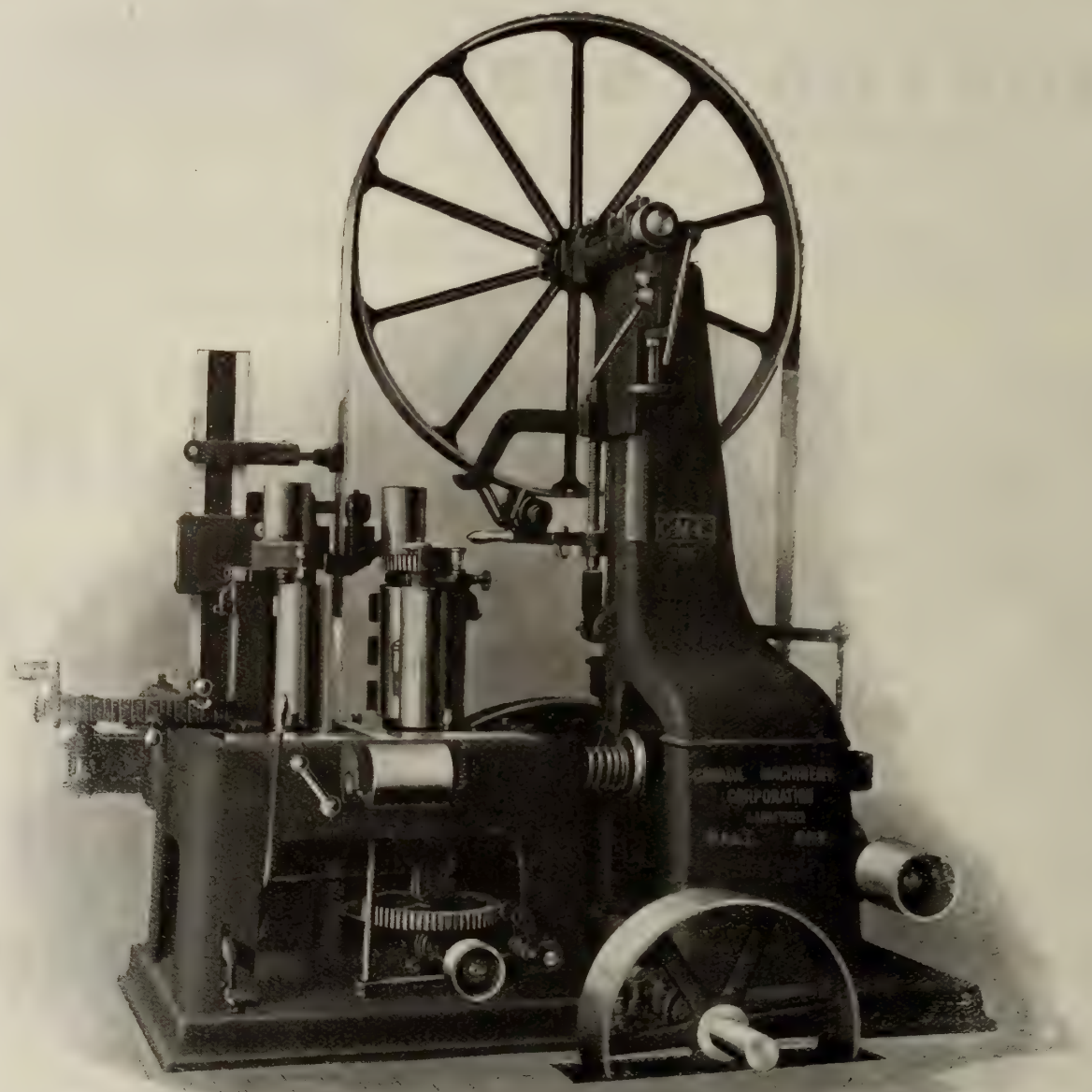
No. 701
BAND RE-SAW



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A Large Heavy Type Band Re-Saw of the Latest Improved Design

Full Details, Bulletins and Prices Supplied on Request

We Make the Most Complete Line of Wood-Working Machinery in Canada

Canada Machinery Corporation, Limited

Galt, Ontario

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We submit **Detailed** estimates with **Topographical** maps of all **Timber Properties** offered through our house Representations based upon our own **Expert** cruisers and loggers, whose **Integrity** and **Experience** have been thoroughly tested over a period of many years.
We solicit correspondence with **British Columbia** timber owners and prospective purchaser

1215 Old Colony Blk. CHICAGO | **1211 Whitney Central Bldg. NEW ORLEANS** | **1104 Spalding Bldg. PORTLAND, Ore.** | **1009 White Bldg. SEATTLE**

THE PETER GERLACH Co
MANUFACTURERS AND BUILDERS OF
SAWS
CIRCULAR AND CYLINDER
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STAVE HEADING AND BARREL
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For the Manufacture of the Following

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COMPLETE PLANTS
FOR THE MANUFACTURE OF
BARRELS, KEGS, STAVES AND HEADING
OUR SPECIALTY
FOR PRICES AND FURTHER PARTICULARS, ADDRESS
THE PETER GERLACH Co. CLEVELAND, O. U.S.A.

An Up-to-date Cross-cutting Machine

Made only by— **Butterworth & Lowe**
Send for Descriptive Price List. 221 Huron Street, Grand Rapids, Mich.

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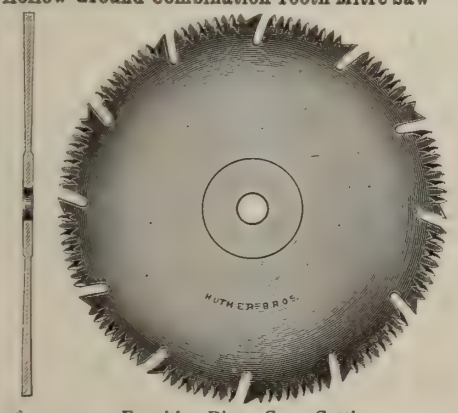
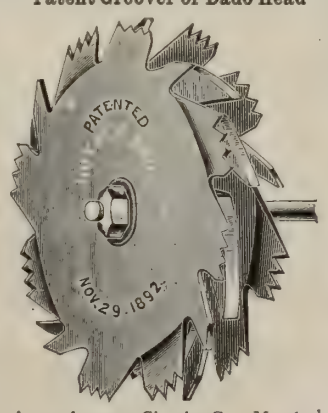
Hollow Ground Combination Tooth Mitre Saw



For either Rip or Cross Cutting
Will cut equally as smooth in either Ripping, Cross-cutting or cutting at an angle of 45 degrees, with grain of wood.

Patent Groover or Dado Head



Can be used on any Circular Saw Mandrel
For cutting any width groove from 1/8" to 2" wide. Will cut either with or across the grain (Sent on approval).

Allow us to quote Prices on Saws for any special work that you wish to do.
HUTHER BROS. SAW MFG. CO., Inc., **ROCHESTER, N. Y.**

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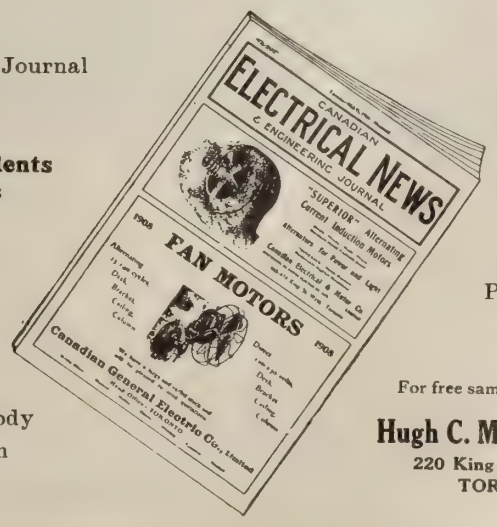
Electricians
and
Engineers
of
Electric Light Plants
and Everybody Interested in Electricity



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TORONTO

Don't Tie the Dead Weight of a Cheap Belt to your Plant

¶ When you install a cheap belt in your plant you are led to expect it to last as long as a good belt—if you thought it would not, you would obviously have installed a good belt in the first place.

¶ You know the advantage of reliable and efficient power transmission in your plant—do not hope to effect this by poor equipment—cheap belts will stretch and slip and cause a shut-down, with its consequent loss of time and money, for shortening and repairs. The good belt saves its slightly additional cost in its reliability.

¶ Every Brand of Beardmore Belting receives the same care and attention and goes through the same process.

¶ All brands are uniform in the possession of the highest quality possible in leather belting.

¶ You are in the market for leather belting—let us demonstrate the advantage of buying the best on the market.

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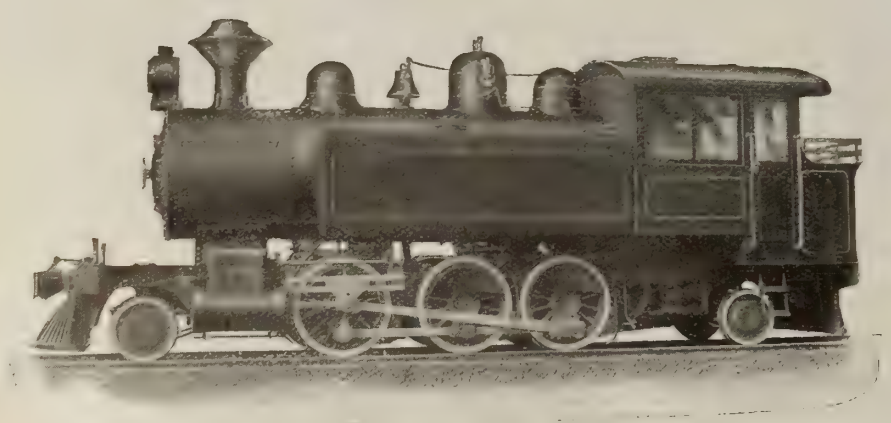
356-58-60 Sparks Street, OTTAWA, ONT.

Market and Louise Streets, WINNIPEG, MAN. **115-125 Adelaide Street West, TORONTO**

SELECTION OF LOCOMOTIVES

WHAT SHOULD BE KNOWN BEFORE YOU PURCHASE LOCOMOTIVES:—



Nature of the service.
Capacity of the cars and weight of train.
Character of track—is it new or old.
Length of haul.
Is time an important factor.
Do you want a quick locomotive or a big puller.
Distance from base of supplies and quarters for the men.
Water and coal carrying capacity.
All these items and more should be considered.
A careful study of conditions may mean larger profits.
Our experience may be valuable in considering them.
A dollar saved is more than a dollar earned.

Write or wire us, or better still, come to see us.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

Makes It's Mark Vivid and Lasting

Marks that remain vivid and wear like iron are a real satisfaction to the man who handles lumber. The metallic pigments, like graphite, of DIXON'S LUMBER CRAYONS offer marvelous resistance to all kinds of weather conditions. Their marks are often visible after six months of severe exposure to sun and storms.

DIXON'S LUMBER CRAYONS

have always remained the recognized standard because of their one, uniform and dependable quality; their convenient and uniform shape and size and because of the careful selection of materials used in their manufacture. DIXON'S LUMBER CRAYONS are made in nineteen grades and colors, including black (six grades), red (two grades), blue (two grades), green, white, yellow, brown, terra cotta, violet, pink and orange. Some are made to fill particular needs—let us tell you more about them. Get acquainted.

Write for lithographed booklet No. 239, illustrated in colors.

Joseph Dixon Crucible Company
Jersey City, U. S. A.

James W. Sewall
Forester and Surveyor

Mapping and Surveying of Wild Lands
Estimation of Timber and Working Plans

(Formerly forestry manager of
the Appleton & Sewall Co.)

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"John Bull" *Larrigans*

Wear Like Iron

WE tan the leather these larrigans are made from and know they will stand all kinds of wet and rough usage when properly cared for. We put a counter stiffener in our larrigans and sew it in with the leg when soled and heeled—a very durable feature in our goods.

Next time you buy larrigans see that you ask for **"John Bull."**

R. M. Beal Leather Co.
Limited
LINDSAY, Ontario

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

HEISLER GEARED LOCOMOTIVES

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

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Kelley Island Lime—(Lighthouse Brand)

Burned with WOOD, from selected Ohio bottom Rock, and packed fresh from the Kilns, in new, tight, double-headed barrels.

Can also ship you in Mixed Carloads

Hard Wall Plaster, Wood Fibre Plaster, Hydrated Lime, Mortar Colors, Waterproofing.

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Wire Us Your Orders for Prompt Shipment

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worth of mixed metals is what we market every year

PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.

Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

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Lumbermen and River Drivers

WHO KNOW

will insist upon having the famous reliable

Penetang Sole Leather

on their boots.

It's water-resisting and wearing qualities are well known to those who have worn it and

"IT HOLDS THE CALKS"

Take no substitute that may be represented as "just as good."

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OUR "EXTRA"

THE J.C. McLAREN BELTING CO. OAK EXTRA TANNED EST 1856

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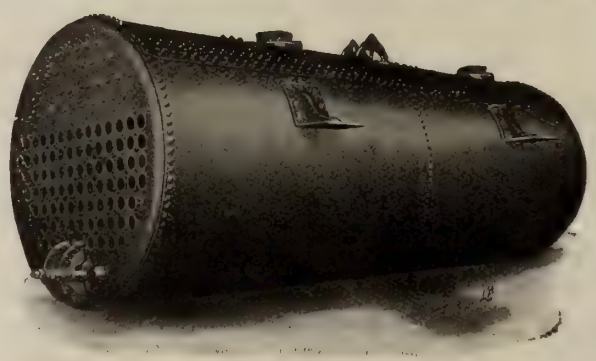
Engineers & Boiler Makers

"Inglis" Boilers are the Best

Write us for quotations



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We Make

Return Tubular, Scotch Marine, Fitzgibbon, Scotch Dryback, Locomotive, Water Tube.

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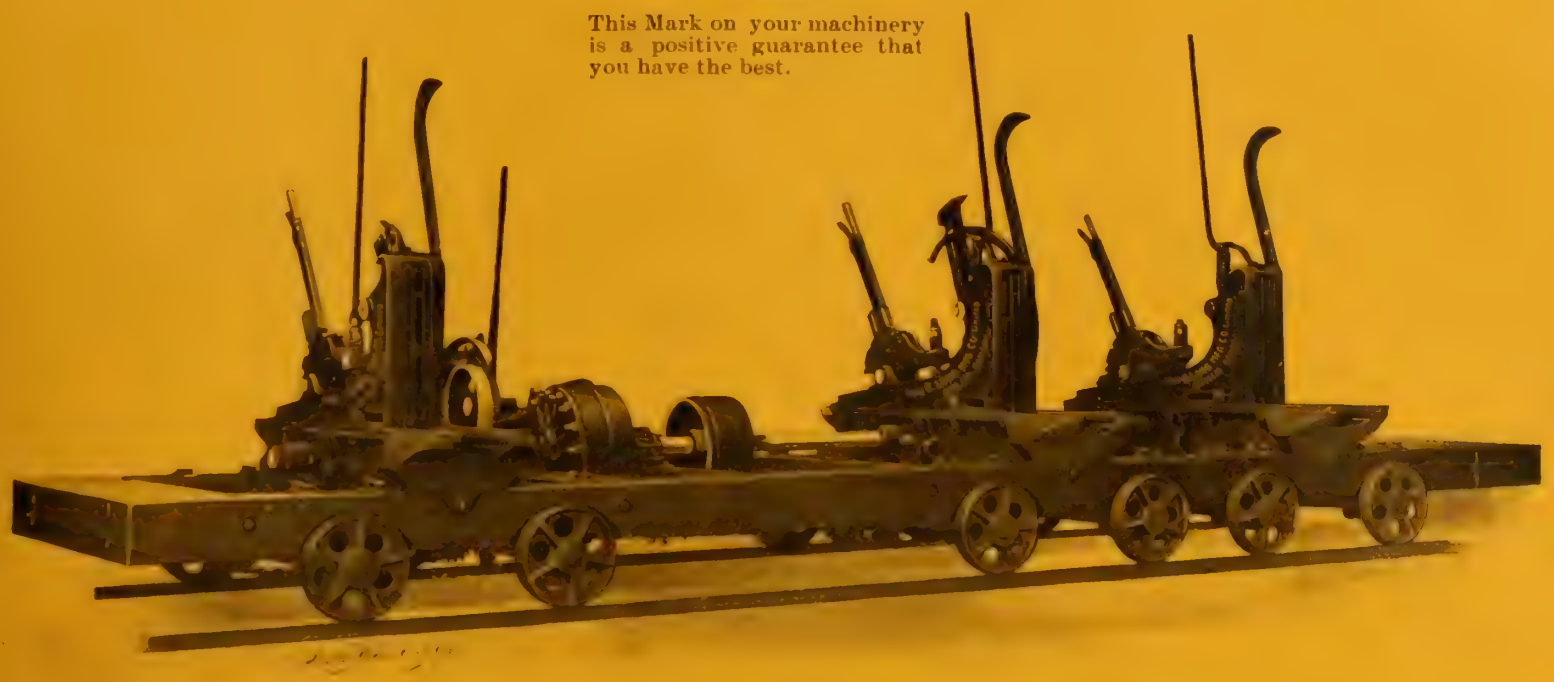
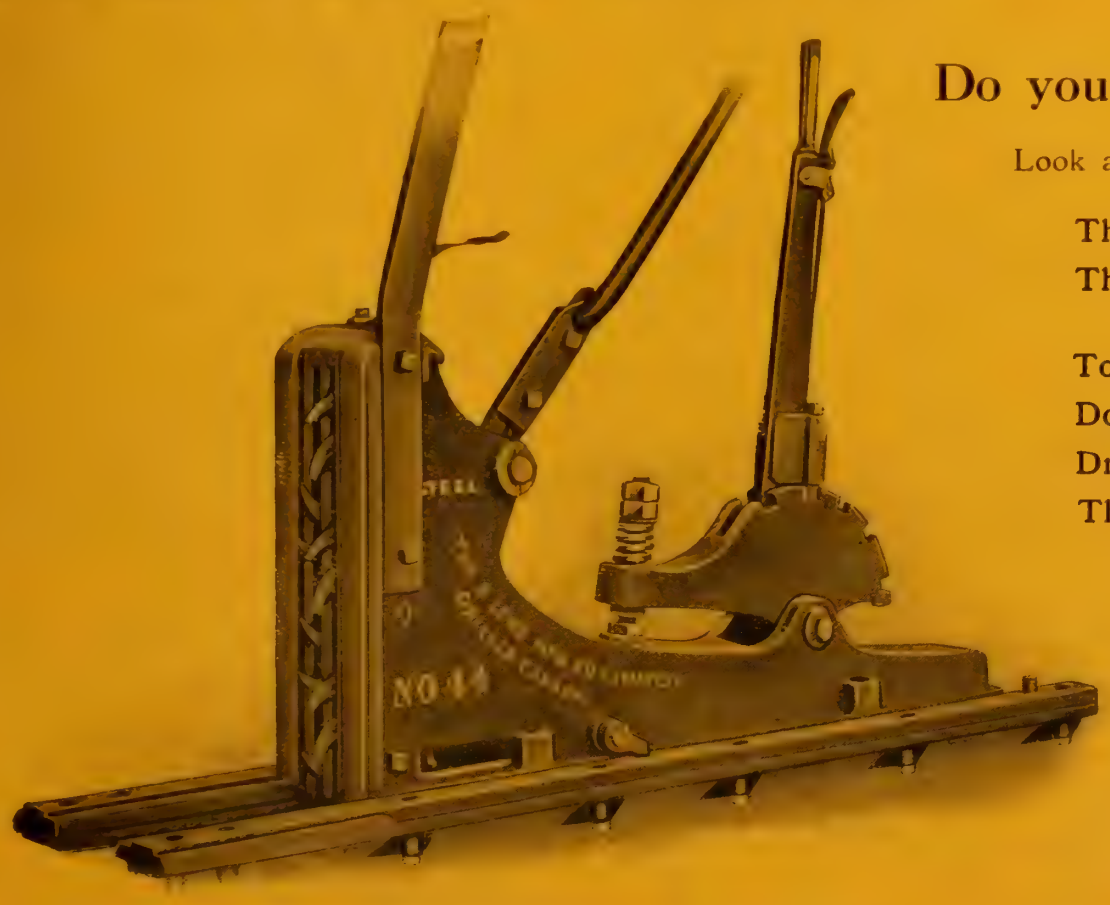
THE E. LONG MANUFACTURING Co
SAW MILL MACHINERY
ORILLIA, CANADA

This Mark on your machinery is a positive guarantee that you have the best.



STEEL SAW CARRIAGES

We have specialized on saw carriages for a long time and know that our new steel carriages are just right in every way; we could not think otherwise when they meet with favor at the hands of the business manager as well as the mill foreman as these carriages have done. This style built with 36", 40", 44", 48", 54" and 60" opening from saw lines.



Do you wonder?

Look at

The heavy design.

The shock absorbing quadrant preventing breakages.

Tool steel forged boss dogs.

Dogs have long sweep.

Draw stock tight up to knee.

The right dog for frozen timber.

Rigid set shaft bearings.

Large set shafts.

Racks and pinions all machine cut.

Do you want more particulars? We can furnish them.

The E. LONG MFG. CO., LTD., Orillia, Canada

Represented by

MONTREAL Williams and Wilson, Ltd.

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Lath Machinery

THREE SAW LATH BOLTER.

Our line of bolters and lath machines is complete. We build machines for mills of every capacity. We are proud of this line, so are our customers.

Bolters illustrated bear the marks of "Long" quality machinery.

Heavy frame.

Powerful feed.

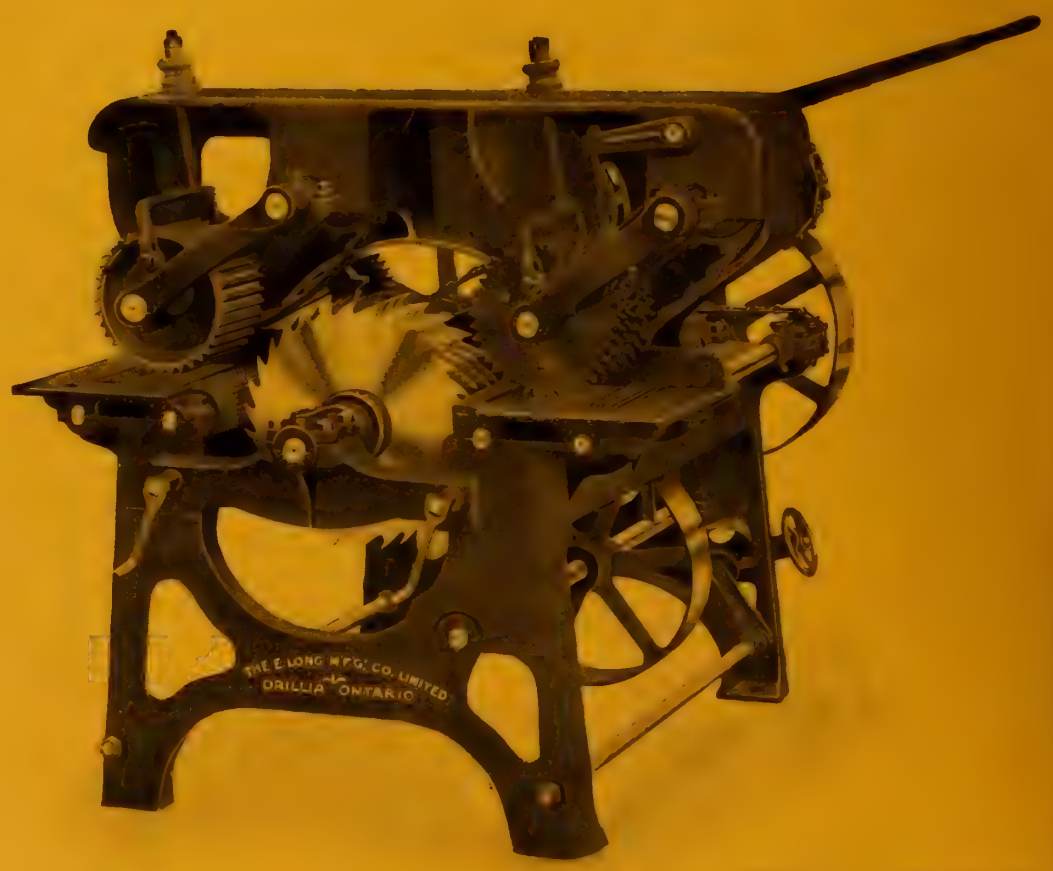
Automatic tightener on feed belts.

Both top rolls driven.

Both top rolls swing to rear.

Bolts cannot stick or fly back.

Name and address will bring full particulars; to become interested write to-day.



FOUR SAW LATH BOLTER

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THE E. LONG MANUFACTURING Co
SAW MILL MACHINERY
ORILLIA, CANADA

SET WORKS

We can supply you with the correct set works to suit any carriage you want or may have

No. 3 ENCLOSED

Ratchet wheels and pawls protected

Two Ratchet Wheels

Large and strong teeth

Lasting qualities in ratchet wheel

All working connections steel

Pawls stay up when lifted without holding lever.

No. 3 Enclosed Set Works. Casing open showing ratchet wheels.

No. 3 Enclosed Set Works. Casing Closed.

OPEN TYPE RATCHET SET WORKS

We build this style in two sizes. All working parts steel. Ratchet wheels 12" and 18" diameter. Slotted quadrant. Improved stop pins.

HERE ARE A FEW

OVERHEAD RATCHET SET WORKS

We build this style in three sizes, to meet all needs. Heavy base. Teeth cut or cast. Pawl arms steel. Foot trip for pawls.

We Have Others

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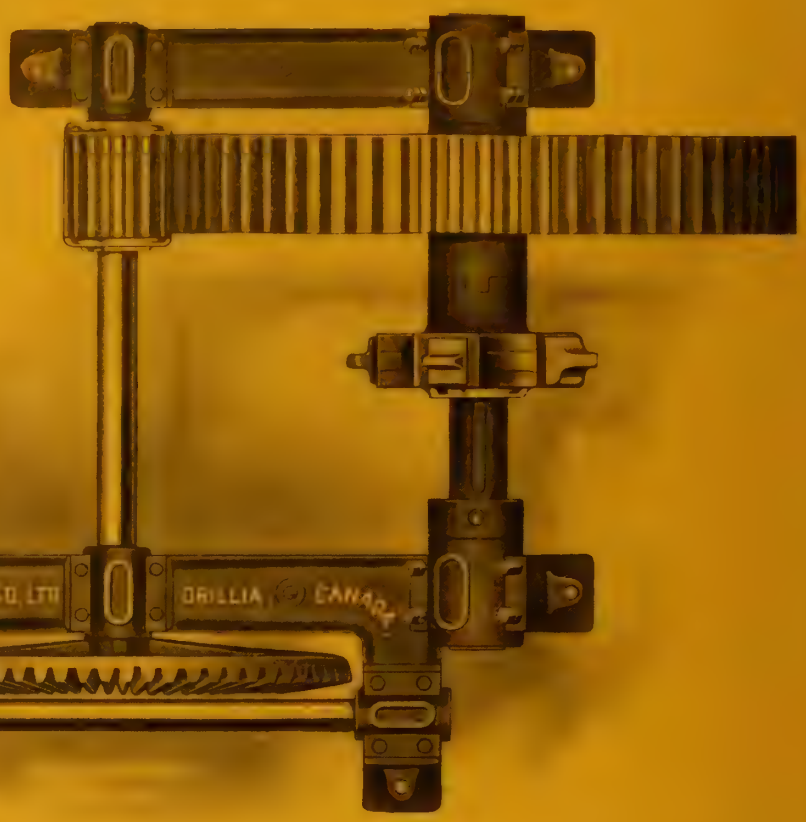
About Jack Works

Mr. Millman, we want to call your attention to our line of Jack Works. These are all of new design and embody many new features. Look at the designs here illustrated.

See the marks of "Long" quality machinery.

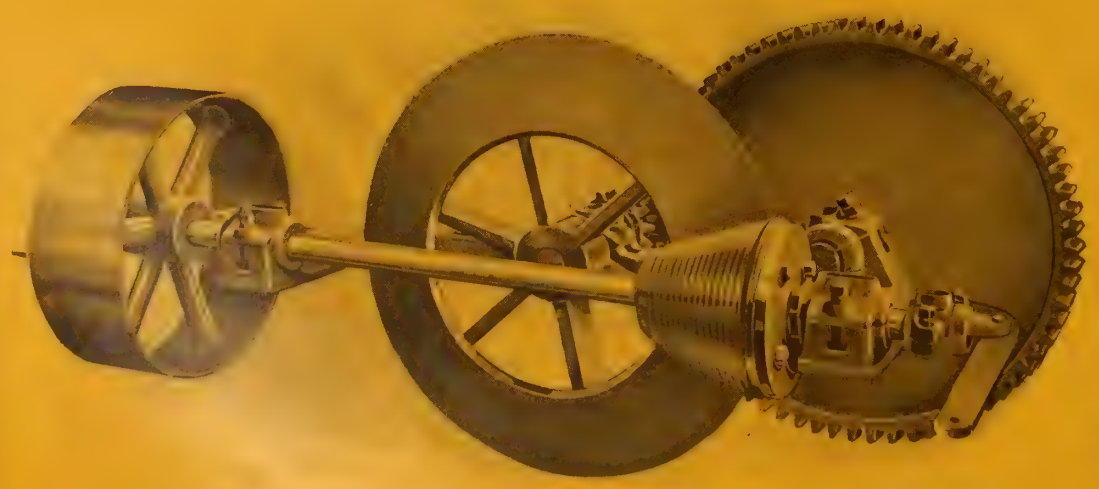
Direct Connected Motor Driven Jack Works.



Direct connected jackers.
Yes! You can use flexible coupling in place of gear.
All frames box pattern.
Drive gear 10 in. face.
Very powerfully geared.

Bevel geared Jackers all sizes.
Machine illustrated is our heaviest type.
All of same design clutch on hub of sprock in addition to heavy key in shaft.

Heavy Duty Bevel Geared Jack Works.



Bevel Friction Jackers

Machine frame very strong.
Will not spring under friction pressure.
All bearings for frictions carried on one frame.
All caps put on with bolts.
All bolts put in from top of frame.

Our new log jack bulletin. will be sent on application.

Medium Duty Bevel Friction Jack Works.

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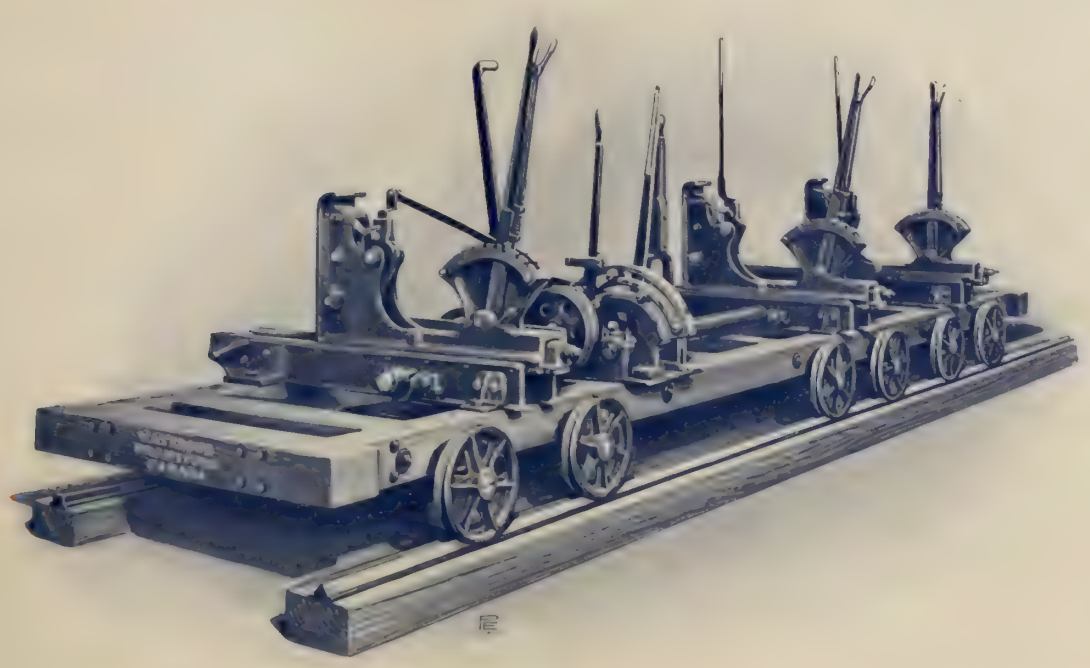


Our No. 2½ Girder Carriage has knee opening of 30, 36 and 40 inches; frame of red pine; logseats double girder 6 in. I beams, steel lined; knees very high, fitted with 4 in. taper movement; Waterous Improved Dogs; steel Nigger Hook; Racks and Pinions cut from solid steel; set shaft 2-7/16 in. diameter; Waterous No. 1 double acting ratchet Setworks; Double trucks under each logseat; wheels of steel 12 in. in diameter, axles 2-3/16 in. Weight from 5500 to 6500 lbs.

STEEL-GIRDER CARRIAGES FOR MEDIUM MILLS

For medium power mills the Steel Girder Carriage has no equal. We build a complete line—in three distinct styles,—which we can guarantee second to none in cutting ability, wearing qualities and in continuity of service.

With knee opening of from 30" to 50", these Carriages are adapted for Band or Circular Mills and for Steam or Rope Feed.

They are turned out with exceptional care. A sturdy, well put together frame, knees and log-seats of great strength, with dogs, setworks and accessories identical with those supplied on our heavy cast steel carriages.

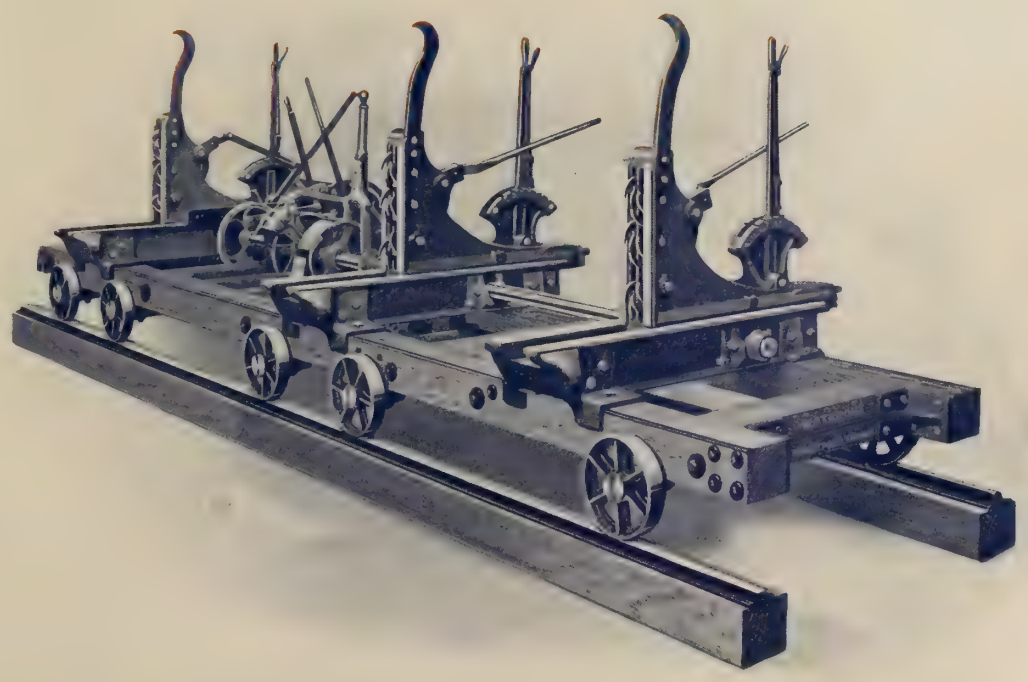
Our new Medium Carriage Catalogue No. 111 is just off the press—send for it.

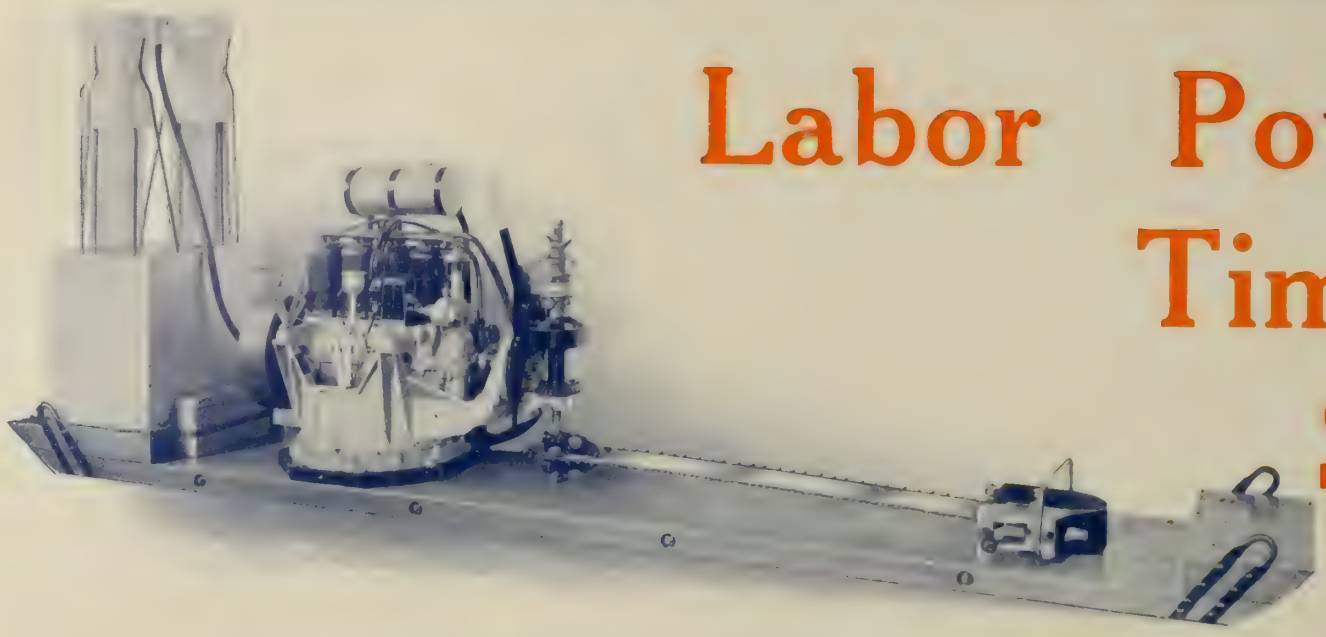
The Waterous Engine Works Co., Ltd.

BRANTFORD, CANADA

Vancouver, B.C. Winnipeg, Man.

The No. 3 Double Girder Carriage Knee opening of 40 in. and 50 in.; red pine frame ½ stringers and crossgirts 8 in. x 7 in.; logseats double girder, 8 in. I beams, heavily faced and reinforced; knees fitted with Waterous Improved Dogs, 4 in. Taper Set, steel Nigger Hook; Racks and Pinions of cut steel, Set-shaft 2-15/16 in.; No. 4 Combination Ratchet Setworks; double trucks, steel wheels 14 in. in diameter, axles 2-7/16 in. Weight 6500 and 7500 lbs.





Labor Power Time Saver!

3-ft. 6-in. Combination Portable Felling and Cross-cutting Endless Chain Saw

Log Held by Two Cant Hooks. Saw Starting Work, 6-ft. Size Working at the Pond

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Bryant & May
London, England.

Diamond Match Co.
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Venesta Ltd.,
Russia and London,
England.

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Potlach, Idaho,
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U. S. A.

Lehigh Valley Coal Co.
(4)
Wilkes Barre,
Pennsylvania.

Astoria Veneer Mills & Dock Co.,
Astoria, Long Island,
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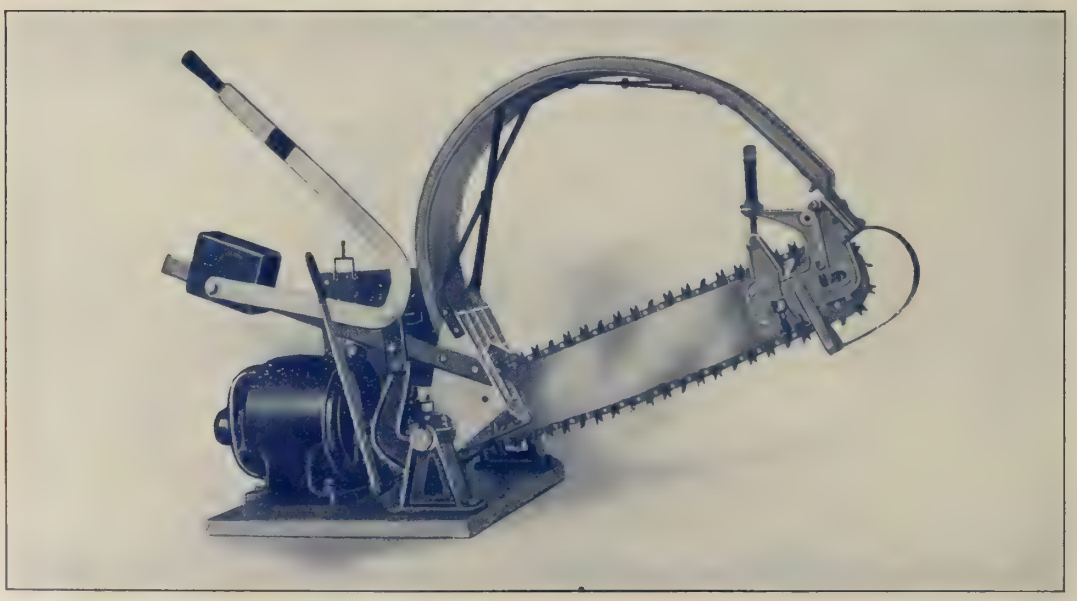
FOR ALL USES
CAPACITY
UNEQUALLED
LEAST MAINTENANCE and REPAIRS



24-in. Stationary Chain Saw Connected to Electric Motor

LEAST POWER
ABSOLUTELY
SAFE

INTERNATIONAL ENDLESS CHAIN SAW COMPANY

34 University Place, NEW YORK, N.Y., U. S. A.

Canada Lumberman & Wood Worker

Time is Money

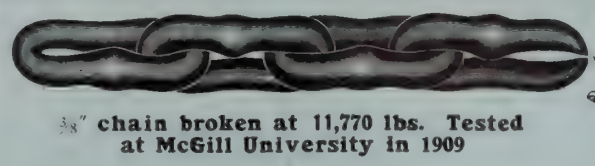
The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.



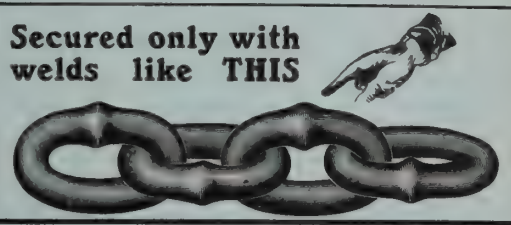
A Test Like THIS

⅜" chain broken at 11,770 lbs. Tested at McGill University in 1909

25% More Weld = 25% More Strength = 25% More Wear

Tested Steel Chain made at **St. Catharines, Ont.**
Sold by
McKinnon Chain Co.
BUFFALO, N.Y.

Secured only with welds like THIS



NO FRAYING AT THE EDGES

Dick's Balata Belting possesses perfect uniformity throughout, whereby true and steady running is ensured, fraying at the edges rendered impossible, and perfect success in fork driving guaranteed. The combination of strength and uniformity in Dick's Belts is due to the process of solutionizing to which the textile portion of the Belting is subjected, and which thoroughly solidifies and unites the whole material.

You can get all the facts in our Catatog No. 17.

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
Steel Pulleys Saw Mill Supplies Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults

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F. REDDAWAY & COMPANY

SOLE MAKERS OF

"CAMEL HAIR" "CAMEL" BRAND TRADE MARK REG. BELTING

The Belt you will eventually use.

The Belt that will Last Longer, stretch less and transmit more power than any other belt.

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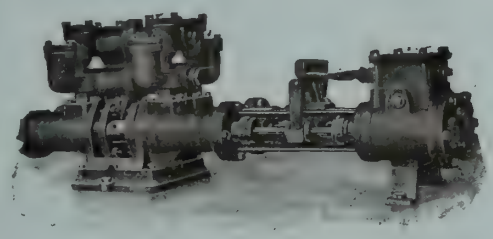


We Manufacture

Steam and Power Pumps, Condensers, Travelling Cranes, Etc.

The Smart-Turner Machine Co., Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

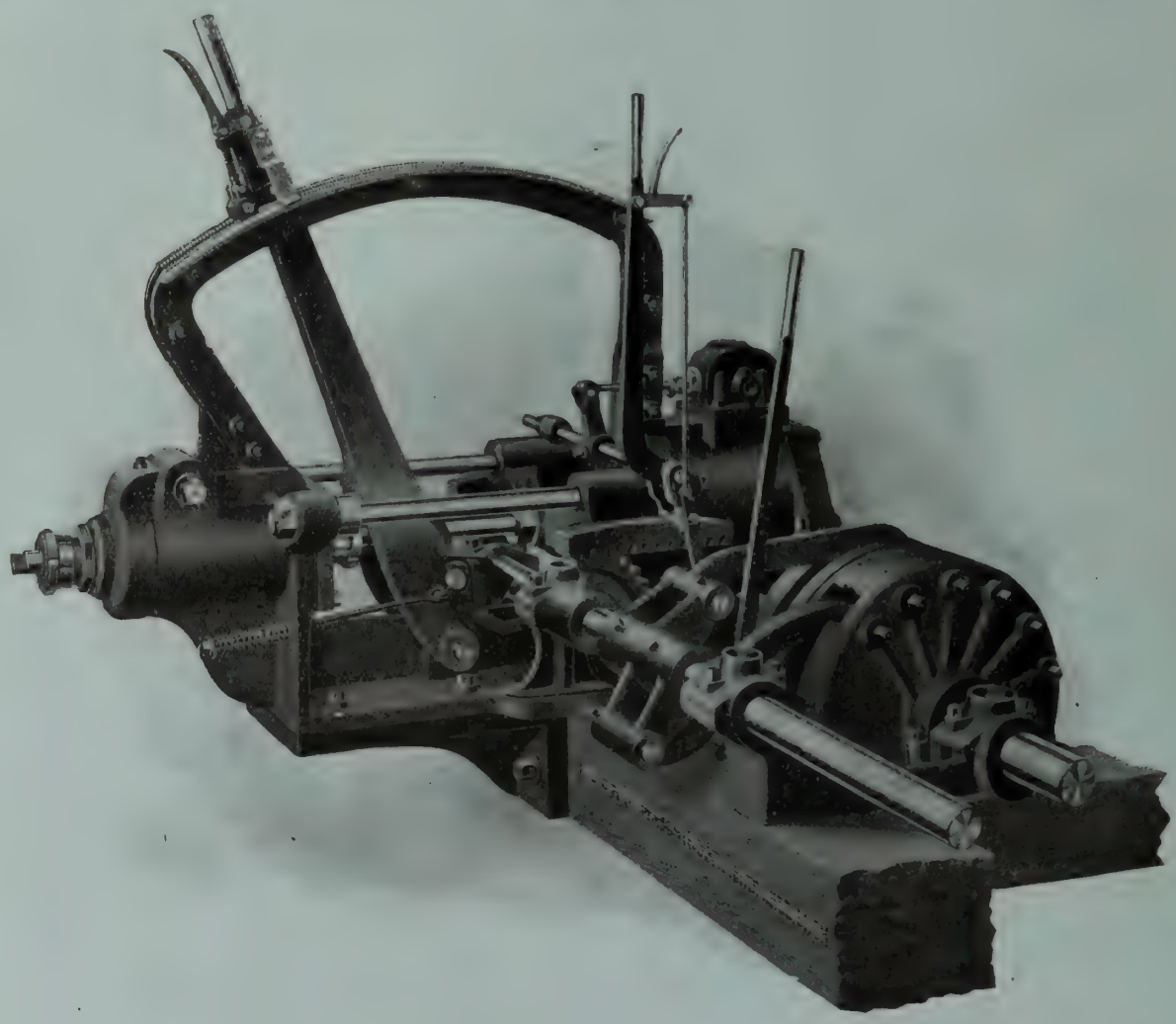
CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

Alphabetical Index to Advertisers, page 60

Did you ever really figure what it means to you to increase your cut 2,000 feet per day?



That is, increase it 2,000 feet per day without adding to your cost of sawing.

Or, in other words, what effect will it have on your profits if you can distribute your overhead charges and wages over an output 2,000 feet per day greater than it is now?

If you haven't figured it out, take your pencil and try it now.

You know how much it costs you to run your mill every day—divide that amount by the number of thousand feet per day in your present output—add 2,000 feet to your present output and divide your daily cost by that amount—and the difference between the two results represents the saving per thousand feet in your operating cost.

Then multiply that figure by your total output per season—and we think the result will surprise you, if you have never looked into this before.

This is just one of the ways in which our FOUR INCH STEAM SET WORKS will make money for you, and it will do just this because the users themselves have written us stating that they have increased their cut *upwards* of 2,000 feet per day.

May we send you further information about this Steam Set works?

William Hamilton Company, Limited

PETERBOROUGH - ONTARIO

YARD VIEW AT OUR MILLS, CACHE BAY, ONT.

CHOICE PINE

Lumber buyers who come face to face with the consuming public are to-day experiencing a demand for quality products that we anticipated a good many years ago.

Our first move in the production of Pine Lumber was the acquisition of a good supply of timber—not only a good quantity, but particularly a good quality, and the best proof we can offer you of our success in the selection of this kind of timber is found to-day in our

Norway or White Pine Lumber, Railroad and Structural Timbers, Flooring, Ceiling, Moulding, Siding, Cross-arms, etc.

Daily Capacity of Mill 190,000 feet of lumber, 65,000 pieces of lath, exclusive box boards and pickets.

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

JOHN GILLIES
President

DAVID GILLIES
Vice-President

J. S. GILLIES
Sec.-Treas

Established
1873

GILLIES BROS. Limited

Mills & Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

Cedar Shingles and
Railway Ties

RED PINE, SPRUCE, HEMLOCK, CEDAR

New York City
Guy E. Robinson, 1123 Broadway

Planing Mill, Yard & Office
MORRISTOWN, N.Y.

CAPACITY 40,000,000

The

Georgian Bay Lumber Co.

Limited

Waubaushene, Ontario

Manufacturers of High Grade

Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

White Pine
Red Pine
Spruce
Lumber and Lath

Office, Castle Building 53 Queen St. Ottawa, Can.

F. N. WALDIE, President. R. S. WALDIE, Vice-President. W. E. HARPER, Secretary.

The
Victoria Harbor Lumber Company
Limited

Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont. Head Office, 12-14 Wellington Street East, TORONTO, ONT.

There's Satisfaction in Ordering These Quality Grades of Lumber

If you're depending upon a supply of lumber you must get your orders in before the fall or you will be up against car shortage—a serious question.

Last spring it was bad enough, and even now there is a scarcity of cars—what will it be when the West begins to move this year's wheat crop?

For Fall and Winter requirements place your orders now and make sure of getting August and September shipments.

Right now we are ready to supply your every demand—at lowest market prices, in

HEMLOCK 1 x 4 and up, 1 x 6, 1 x 8, 1 x 10, 2 x 6, 2 x 8, 2 x 10

SPRUCE 1 x 4, 1 x 5, 1 x 6, 1 x 7, 1 x 8, 1 x 9 and 1 x 10

We can also fill orders, in any quantity, of **White Pine**—the finest well-watered stock obtainable. Always ready for shipment. We can dress or resaw.

☞ *Write for prices, etc.* ☜

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 1200 Claremont Ave., MONTCLAIR, N.J. **Hope Chambers, OTTAWA, CAN., Head Office**

Timber Limits for Sale on Georgian Bay

The undersigned offer for sale in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; Tug Scow and other Lumber Equipment, including boom chains, plows, sleighs, etc.

The Limits, part of which have recently been sold, include: 440 square miles of licensed and deeded Pine, Hemlock, Spruce, Birch and other timber. The licenses from the Ontario Government include all timbers and are not restricted for time. Government dues are as follows: Saw Logs, White Pine, $1.50 per M. ft., B.M. Saw Logs, Hemlock, Tamarac and other woods 75c. per M. ft. The timber is situated in the Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street. The Canadian Pacific, Canadian Northern and Grand Trunk Railways run through the limits, which makes some of the parcels offered for sale particularly desirable for small mill owners.

A circular giving full information, maps, terms and conditions of sale will be furnished upon application to

The Parry Sound Lumber Co., Limited

1315-20 Traders Bank Building, TORONTO, CANADA

THE trend of trade is now towards our **CUTLER** Mills, when customers want anything at **BAY** ports for water or rail delivery, and our **LUMBER** is selling itself by repeat orders from any **COMPANY** to whom we make a shipment. Our stock is **LIMITED** but we still have a goodly quantity to dispose of at prices worth while considering.

DON'T BUY TILL
YOU GET OUR
PRICES

The Eyer Lumber Co.
34 Victoria Street, Toronto
are Selling Agents

The Rideau Lumber Co., Limited

Trafalgar Building, Ottawa, Ont.

We offer the following, of 1911 Sawing

Quality—**Dressing and Factory**

2 cars	5/4 x 4 and up	—	6/11 ft.	Average 7	in.	wide
1 "	6/4 x "	—	"	" 7½	in.	"
4 "	8/4 x "	—	"	" 8½	in.	"
2 "	5/4 x 7 "	—	12/16 ft.	" 9	in.	"
2 "	6/4 x "	—	"	" 9½	in.	"
5 "	8/4 x "	—	"	" 9½	in.	"

Quality—**Red Knot Dressing**

6 cars	6/4 x 8 and up	—	12/16 ft.	largely 8	in.
8 "	8/4 x "	—	"	"	"

THE
M. BRENNEN & SONS MFG. CO.
HAMILTON, ONT.

MATCHING, DRESSING AND RE-SAWING

done in transit at lowest prices. We are equipped to dress and bore heavy Georgia Pine Timbers.

Knowles & O'Neill

WHOLESALE

Lumber, Ties, Pulpwood

Etc.

COMPLETE STOCK OF
Quebec Spruce and Pine Lumber
ALWAYS ON HAND

An exceptionally nice lot of 2" Pine, well seasoned, for sale, also 1", 2", 3" Spruce, Square and Waney Spruce and Cedar.

Correspondence Solicited. Room 4, Hochelaga Bank Building **Quebec, Que.**

The Golden Lake Lumber Co.
Limited

MANUFACTURERS OF

Lumber, Lath and Shingles

Offer at LOW FIGURE for QUICK sale:

80,000′ 2 x 4 & up 6/16′ No. 1 White Pine Mill Cull
20,000′ 2 x 4 & up 6/16′ No. 2 White Pine Mill Cull
18,000′ 1 x 4 & up 6/16′ Log Run, Dead Culls out White Birch
125,000 pcs. 1½ x ⅜ x 32″ Mill Run Hemlock Lath

All of above, shipment G. T. R. from Golden Lake, Ontario

Head Office: - EGANVILLE, ONT.

JAS. PLAYFAIR D. L. WHITE

PLAYFAIR & WHITE

Manufacturers and
Wholesale Dealers

Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

Long Lumber Company

Head Office
Hamilton, Ontario

Branch Office
Traders Bank Building
Toronto, Ont.

Offer for immediate shipment the following stock at Parry Sound

200,000 ft.	2 x 4 — 10/16	Red Pine
200,000 ft.	2 x 6 — 10/16	"
200,000 ft.	4 x 4 — 10/16	"
200,000 ft.	1 x 4 — 10/16	"
50,000 ft.	2 x 8 — 10/16	"
50,000 ft.	2 x10 — 10/16	"
50,000 ft.	3 x 6 — 10/16	"
150,000 ft.	4/4, 5/4, 6/4 and 8/4	

Clear and Clear Face Norway.

WRITE FOR PRICES

Cameron & Co, Limited

Manufacturers

LUMBER, LATH, SHINGLES, TIMBER, POLES and POSTS

We have for quick shipment

Hemlock Ties

Mill and Yard
OPEONGO, ONT.

Head Office
OTTAWA, ONT.

Send your enquiries to our Head Office

The McLennan Lumber Co., Limited

Everything in Lumber
Rough and Dressed
Wholesale and Retail

Want to Purchase

Dry Ash, Birch, Basswood and Rock Elm

ADDRESS
21 Dorchester Street West, MONTREAL

The Hurdman Lumber Co.

OTTAWA, CANADA Limited

EASTERN

Pine, Spruce, Hemlock, Hardwoods, Timber, Lath and Shingles

WESTERN

British Columbia Timber

at Lowest Prices and any Sizes.

Pine, Spruce, Hemlock, Lath, Birch, Maple

Good Stocks. Prompt Shipments.

INQUIRE OF

C. A. SPENCER

Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles

Eastern Townships Bank Building, MONTREAL, Quebec

Williams Lumber Company

Wholesale Dealers in

White and Red Pine, Spruce and Lath
ROUGH OR DRESSED

For 1 x 4 and up x 6/11 ft dressing shorts.
For 5, 6 and 8/4 x 12/16 dressing strips.
For 5, 6, and 8/4 shipping cull shorts, strips and sidings.

Write us before placing your orders

18 CENTRAL CHAMBERS - OTTAWA, ONT.

Edward Hines Lumber Co.

(Branch Office)

Owen Sound, Ont.

All grades of

WHITE PINE

and

Norway Dimension Bill Stuffs

WHITE and RED PINE LATH

WILLIAM H. BROMLEY

Wholesale Lumber

Aux Sable River Forest Reserve Timber Produces Best Lumber in Ontario.

Every lumber dealer and consumer in Western Ontario, Buffalo, Detroit, Central New York and Montreal knows what excellent lumber is produced from Playfair & White's mills at Midland, Ont. I can offer you from that point, all sizes of White Pine and Norway Pine; any quantity of the choicest lumber in the Georgian Bay district. These mills will commence sawing about May 15th.

SPECIAL:—The best block of Basswood in Ontario. estimated 2,000,000 ft. I am prepared to offer, sawn to any size required.

Other stocks of Pine, Hemlock and Spruce at Pembroke, Ottawa and Collingwood.

Quotations promptly given and enquiries solicited

Pembroke - - Ontario

ESTABLISHED 1855

THE McGIBBON LUMBER CO.

OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

Hemlock Billstuff a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

JOHN MCKERGOW, President — W. K. GRAFFTEY, Managing-Director

The Montreal Lumber Co. Limited

Wholesale Lumber

Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W

WHOLESALE DEALERS

SPRUCE

13 Foot and 16 Foot

Lath and White Cedar Shingles

CHRISTY-MOIR CO.

149 Broadway, New York City

THE

Brockville Lumber Company

LIMITED

Brockville, Ont.

Morristown, N.Y.

Wholesale and Retail

Lumber, Lath, Shingles, Bill Stuff

And all kinds of SASH FACTORY and PLANING MILL GOODS.

McLennan Timber Lands and Lumber Co.

Limited

Selling Agency and Dealers in all kinds of

Timber Lands

Offices: Gazetteville, N.Y.
Quebec, 138 St. Peter St.

RAILS For Tramways, Sidings, Etc. New and Second Hand

YARD LOCOMOTIVES

John J. Gartshore

58 Front St. W., TORONTO

Hardwood Flooring

The Celebrated Diamond Brand

End Matched, Bored, Polished and Bundled

Manufactured by

SIEMON BROS., LTD.

For prices write

W. T. EAGEN

Selling Agent for Ontario and Quebec

203-4 McKinnon Bldg.

Phone M. 6316 TORONTO

Pine Doors

That Are Right

Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

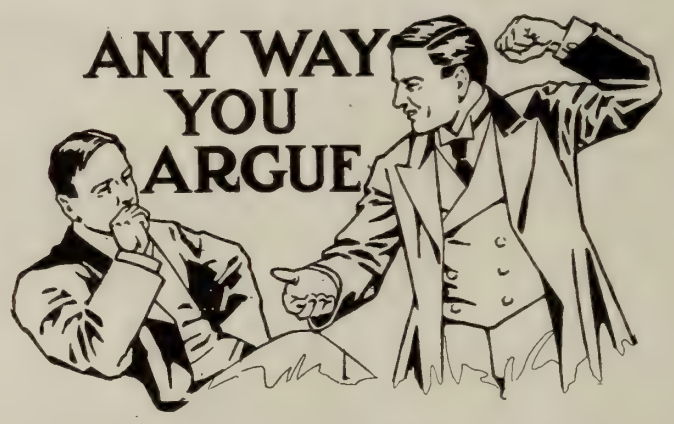
We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

No. 3 Pine Doors

THE

Pembroke Lumber Co.

Pembroke, Ontario



The only goods of any use to the wise business man are the goods that SELL RIGHT.

You might make profit on any sort of goods at all, but it is the goods that SELL RIGHT that build up your business.

OUR

HEMLOCK, PINE and HARDWOOD

SELLS RIGHT

because it is made from the right kind of timber, is graded right, and is sold at the right price. We dress and size all our Hemlock Lumber—we help you to save on your freight—you know what that means.

We specialize in car lots— Write us your requirements

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

The Harris Tie & Timber Co.,

198 Sparks St., Ottawa, Ont.

Cedar Poles and Posts, Piles and Bridge Timber

Track and Switch Ties

The

North Channel Lumber Co.

Limited

Successors to

SAGINAW LUMBER & SALT CO.

MANUFACTURERS OF

Pine Lumber

Saginaw, Mich. U.S.A.

Mills at Thessalon Ont.

We Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

AUGER & SON

QUEBEC

HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.

NIAGARA FALLS, N.Y.

The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

Orillia, Ont.

R. LAIDLAW LUMBER CO.

LIMITED

Toronto

Sarnia

Buffalo

Imperial Timber & Trading Co.
LIMITED
VANCOUVER, B.C.
Branch Office:
15 Cadogan Block,
CALGARY, ALTA.

Every Description of
DOUGLAS FIR,
RED CEDAR, SPRUCE,
HEMLOCK, LARCH and
PINE LUMBER and
RED CEDAR SHINGLES

Heavy Construction Timbers a Specialty
Lengths up to 110 ft.
Try a car of our Extra Quality XXX RED CEDAR SHINGLES
Rail and Water Shipments.

CANADIAN OFFICE & SCHOOL FURNITURE Co. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS.
OFFICE, SCHOOL CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

WANTED
100 m ft. clear hard Maple axles 4 in. x 5 in.-6ft. and 12 ft. long. Also all thicknesses Common and Better Birch.
For Sale
All grades and thicknesses of Cherry and Mahogany lumber. Also Mahogany, Circassian Walnut and Quartered White Oak veneer all thicknesses. Please let us hear from you.
WARREN ROSS LUMBER CO.
Jamestown, N. Y.

SPECIALTIES
Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding
James Gillespie
Pine and Hardwood
Lumber
Lath and Shingles
North Tonawanda, N. Y.

"Well Bought is Half Sold"

STOCK OFFER;-

2 cars 1 x 8 and up No. 3 shop and better W. P.
3 " 6 4 No. 1 and No. 2 shop. "
2 " 6 4 sash cuts "
4 " 6 4 x 10 Select Mill Run "
4 " 2 x 6 Common and Dressing "

The above all 1911 cut F.O.B. Byng Inlet.
We can ship promptly.
Let us have the pleasure of quoting.

Graves, Bigwood & Co.
MANUFACTURERS OF
Pine and Hemlock Lumber
730 Traders Bank Building, Toronto, Ont.
Mills: Byng Inlet, Ont.

We are Buyers of
Hardwood Lumber
Pine and Spruce
Veneers (3 or more ply) Handles (all descriptions)
Staves Hoops Headings
JAMES WEBSTER & BRO., Ltd.
Bootle, Liverpool, England
London Office:
Dashwood House 9 Broad St., E.C.
News Chambers, 57 Hope St., Glasgow

Cant & Kemp
52 St. Enoch Square
GLASGOW
Timber Brokers
Cable Address, "TECTONA," Glasgow
A1 and A B C Codes used

Smith & Tyrer Ltd.
Agents for Shippers of
SPRUCE, PINE, HARDWOODS AND OTHER WOOD GOODS.
Please Offer Stocks on hand.
26 Chapel St., LIVERPOOL

FARNWORTH & JARDINE
Cable Address: Farnworth, Liverpool
WOOD BROKERS and MEASURERS
2 Dale Street, Liverpool, and Seaforth Road, Seaforth Liverpool England

Saddle Tank Locomotives
Geared Locomotives
Steel Rails
Flat Cars
All Secondhand
Correspondence solicited
SESSENWEIN BROS.
Montreal

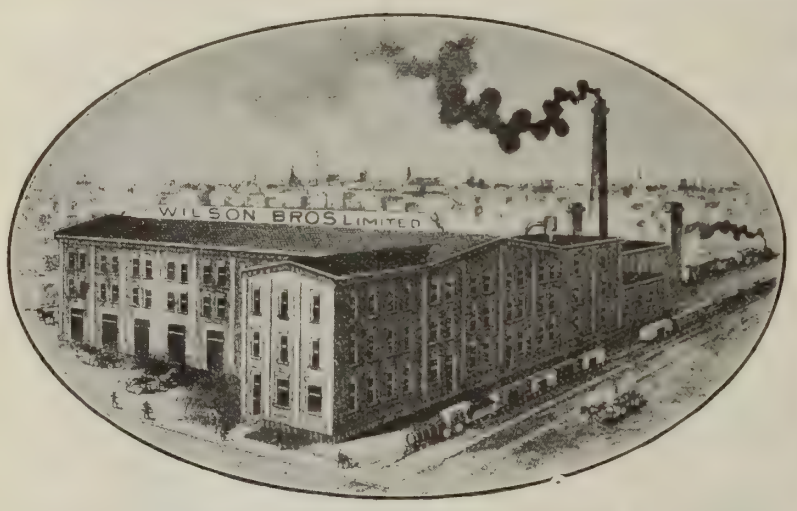
Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office: — Pacific Building, VANCOUVER, B. C.**



This illustration does not show you the largest factory in the world. But it does show you a plant that is unusually well equipped—where only experienced workmen are employed—where the highest grade materials are used—The home of

Wilson Bros., Limited, Flooring

The fact that we are one of the oldest and largest manufacturers of **Maple Flooring** in this country should give you confidence to specify and buy not only **Wilson Bros., Limited, Maple Flooring,** but also **our Beech, Birch** and **Oak Flooring. Wilson Bros., Limited, Flooring** means a carefully kiln dried and manufactured article. It is straightened, hollow-backed, bored, end matched, steel polished and bundled.

Wilson Brothers, Limited

COLLINGWOOD, ONTARIO

Wm. Milne & Son, Ltd.

Manufacturers:

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.

Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

Spanish Mill

White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel shipment only.

Casey-Shaw Lumber Co. Limited

Sudbury, Ontario

Manufacturers of

Lumber and Lath

Planing Mill Work

SAW MILLS
Long Lake, Ont. and Blezard, Ont.

GENERAL OFFICE
Sudbury, Ont.

Lumber Wanted

We want 1″ Crating Spruce and 1″ Elm Crating. Write us telling what you have to offer.

The Glengarry Lumber Co., Limited

Berlin, Ontario

TORONTO WHOLESALERS

Full Stock Dry Pine and Hemlock

BILLS IN PINE AND HEMLOCK

Cut to Order

NEW TELEPHONE ADELAIDE 1783

The Fesserton Timber Co., Limited

15 Toronto St., TORONTO

Mills at FESSERTON, ONT.

JOHN DONOGH & CO.

Wholesale Dealers

Hemlock **Spruce**
White Pine **Red Pine**

Full stock in all grades and sizes

B.C. Cedar Shingles — **N.B. Cedar Shingles**

—WRITE US—

1205 TRADERS BANK BUILDING, TORONTO

C. A. Larkin Lumber Co.

Limited

We have an exceptionally well assorted stock of Dry White Pine, but wish to call particular attention to our select Mill Run 5/4″ x 4, 5, 6, 8 & 10″ and 6/4 x 10.

If you want silo stock, we have it; 2 x 4, 2 x 6, 2 x 8, & 2 x 10 10/16 Mill Run Norway.

Toronto :: Canada

Do You Want a Salesman?

¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

LEAK & CO., LIMITED

18 Aberdeen Chambers

TORONTO, ONT.

We are in the market for Hemlock, Spruce and Hardwoods, also No. 1, 2 3 Lath.

Send us list of anything you have to offer.

Spears & Lauder

OFFER

One Million feet, Birch, Basswood, Ash, Elm and Maple

now being cut from exceptionally choice logs.

Also during the Summer months 2½ million feet of hemlock.

LET US QUOTE YOU ON YOUR REQUIREMENTS.

Head Office: 501 Kent Bldg., - TORONTO

The

Elgie & Jarvis Lumber Co.

Limited

18 Toronto Street, Toronto, Ont.

We are in the market for

Stocks of

Hemlock Lumber

For quick sale High Class Stock of **Pine, Spruce, Birch, Maple, Ash, Cypress.**

Send us your inquiries. Stock and price right.

Special:—

3″ Spruce	8/10
3″ Soft Elm	"
1″ Black Ash	"

C. G. ANDERSON LUMBER CO.

Manning Chambers, TORONTO

E. H. Heaps & Co., Ltd.

Lumber, Shingles, Doors, Mouldings, Finish, etc.

Specialties: AA1 BRAND HIGH GRADE SHINGLES
LONG FIR TIMBER

Mills at
Vancouver and Ruskin, B. C.

Head Office: 445 Hastings Street West
VANCOUVER, B.C.

The Fernie Lumber Company, Limited

FERNIE, B. C.

MANUFACTURERS OF AND DEALERS IN

Rough and Dressed Lumber

Tarmarac, Spruce and Cedar

Fence Posts, Telephone and Telegraph Poles

Moulding in Stock or Made to Order

A. McDOUGALL, President

ASH BASSWOOD CHESTNUT CHERRY COTTONWOOD

BUCKEYE CYPRESS MAHOGANY

Need any Oak?
Need any Poplar?
Need any Chestnut?

OUR SPECIALTY—The supplying of high class lumber—at right prics.

Shipment direct from mill—good grades.

YOU CAN'T AFFORD to manufacture Oak Flooring when you can buy it—ready to lay—at our prices.

CAN MAKE PROMPT DELIVERIES

THE F. T. PEITCH CO.,

CLEVELAND, OHIO

GUM POPLAR SYCAMORE

PLAIN AND QUARTERED OAK YELLOW PINE

Pine

Selects
Shops
Commons
and
Mouldings

THE HALL MARK OF QUALITY

Larch

Timbers
Yard Stock
Clears
and
Mouldings

The East Kootenay Lumber Co. Limited

Head Office: JAFFRAY, B.C.
Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

For low prices and prompt shipment of

Yellow Pine Timbers
Short Leaf Finish
Chestnut --- Oak --- Ash
Cypress
New Brunswick Shingles

TRY

Fred S. Morse Lumber Co.

Box 1600 SPRINGFIELD, MASS.

Modern Methods Do It All

Pine
Hemlock
Spruce
Hard-
woods
Rough
and
Dressed

We
make
a
Specialty
of
Long
Timbers

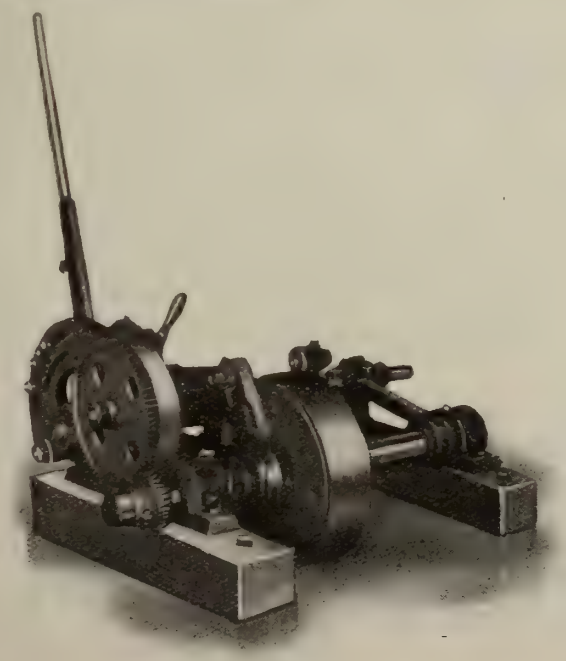
Fassett Lumber Co.—Loading Logs on Cars for the Mill

Fassett Lumber Company, Limited

FASSETT, QUEBEC

The Importance of Efficient Mill Machinery

In Millwork, where every portion of the equipment has to undergo the severest treatment with unusually hard conditions only the best machinery will serve. No mill can be run at a profit with inferior equipment. This is an expression of the opinion of men of wide and varied experience in the business.



P. Payette's Improved Mill Machinery, is built to stand all the strain and hard usage of mill work. This machinery is of the special Payette design and embodies many improvements, which add considerably to the efficiency of mill equipment.

The New Patent Saw Mill Dog which operates in soft or hardwood timber of any kind will do good even work in summer or winter with perfect safety.

Payette's Improved Set Works will set even thickness of lumber in all class of timber and will set any size log with perfect ease, Can be changed instantly so as to make either thick or thin lumber and can be put on any make of carriage.

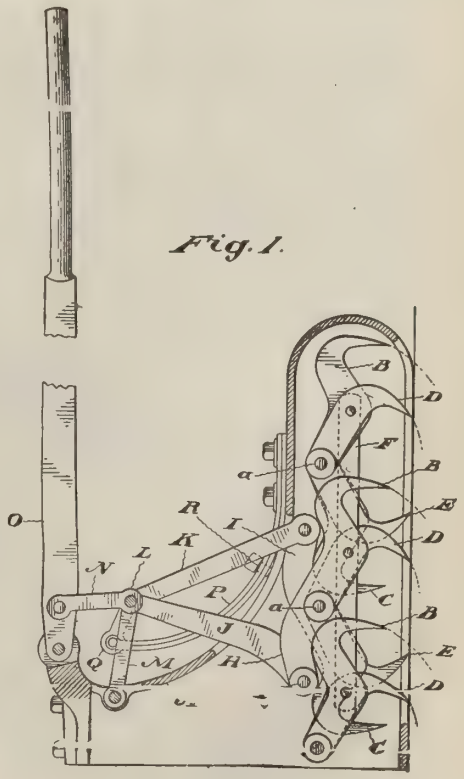


Fig. 1.

We want to prove to you the advantage of this set works in your mill and we are prepared to demonstrate its efficiency and superiority. Full information sent on application. Ask for our booklet on set works.

P. Payette & Co. Engineers & Machinists Penetanguishene, Ont.

FOR QUICK SHIPMENT

We offer the following stock, subject to prior sale All Dry Stock:

A few cars left of:

5/4 x 6/8/10 No. 1 and 2, Barn
6/4 x 6/8/10 No. 1 and 2, Barn
200M 1", 1½" and 2" x 12—12/16 Spruce
100M 3 x 10—10/16 Spruce
1" x 4", 5" and 6" No. 1 and 2, Barn
1½" x 4", 6" 8" x 10" No. 2, Barn and Better

From Small Logs

1", 1¼ and 2 x 4,—10/16' Spruce, rough or dressed
" " 2 x 5, " " "
" " 2 x 6, " " "
" " 2 x 7, " " "
" " 2 x 8, " " "

1", 1¼ and 2 x 10,—10 16' Spruce, rough or dressed
" " 2 x 12, " " "

A choice lot of 1" Ash and winter sawn 1" Basswood; also Birch Flooring in all grades and thicknesses.

1 x 4/up, 6/11' Mill Run Hemlock, Mill Culls out.
1 x 4/5", 12/16' " " " " " "
1 x 4/6", 12/16' " " " " " "
2 x 4/up, 12/16' " " " " " "

2 x 6, 7, 9 & 11", 12/16' Mill Run Hemlock, Mill Culls Out
3 x 8, 10 & 12", 12/16' " " " " "
Also Log Run Hemlock, Dead Culls out.
Scant 2 x 6, 8 and 10", 6/16'

Send us your inquiries. We can supply you all your wants in Pine.

DRESSED LUMBER OUR SPECIALTY

Write, wire or 'phone us for prices before placing your orders.

W. C. Edwards & Co., Limited

Ottawa, Ont.

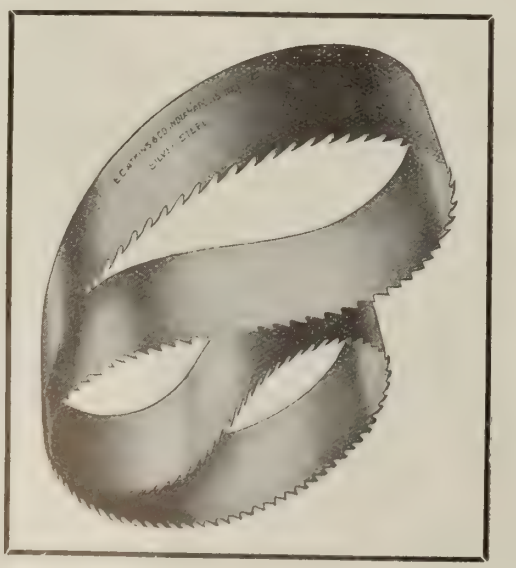
Mills at Ottawa and Rockland **Planing Mills and Factories at Ottawa**

"EVERYTHING IN LUMBER"

Why not make 1912 the most profitable saw year in your history?

ATKINS STERLING BAND SAWS

Made in Canada



THESE Saws are celebrated on account of their exceedingly tough temper and generally scientific construction. They will stand up to their work longer under the most trying conditions. You will find fewer cracks in ATKINS BAND SAWS than any other and they will hold their teeth and points remarkably. Why not place a trial order and make us prove these statements.

Write to-day

E. C. ATKINS & CO., Makers of STERLING SAWS HAMILTON, ONT.

Vancouver Branch, No. 109 Powell Street, **U. S. Factory, Indianapolis, Ind.**

Dealers Looking for BIG PROFITS and High Grade Quality Doors

cannot afford to overlook the advantages of buying in carload lots when you are assured regular mill run stock of the quality and workmanship we offer. This is particularly true of the special offer we are making right now on carload lots.

WE ARE THE

Biggest Manufacturers of Doors in Canada

A DOOR A MINUTE IS OUR CAPACITY

GET BUSY AND INVESTIGATE

Estate James Davidson - Ottawa, Ontario

GARLOCK PACKINGS

Garlock Regular Rings

For all general purposes outside of high pressure work. This Packing is a special grade thoroughly lubricated with the celebrated "Garlock" compound, and is the perfected result of over thirty years experience in manufacturing fibrous Packings.

Garlock Square Duck Packing

Made of good quality Cotton Duck and friction for cold water.

Garlock High Pressure Gaskets

Absolutely heat proof, will not vulcanize or blow out under any steam pressure, being made of long fibre Asbestos Brass Wire Insertion.

Garlock Red Sheet Packing

Made of high grade Rubber compounded in such a way as to give it great strength and reliability.

This Packing has established wide reputation on its own merits.

Garlock Cloth Insertion Sheet

Used on cold and warm water pipes. Is unexcelled in pliability, smoothness of finish and strength of Cloth Insertion.

Garlock Rubber Valves

Specially made to meet specific conditions—absolutely unaffected by oils.

Before placing your next order for supplies get our prices on Leather, Rubber and Canvas Belts, Hose, Brass Valves, Babbitt Metals, Saw Blades, Files, Emery Wheels, etc. Write for catalogue.

THE GARLOCK PACKING CO.

Head Office and Factory: HAMILTON, ONT.

MONTREAL TORONTO WINNIPEG

MARITIME PROVINCES

Maritime Lumber Co.
Limited

Head Office: Saint John, N. B.

Branch Office: 180 St. James St. Montreal, P. Q

OFFER FOR IMMEDIATE SHIPMENT THE FOLLOWING WHITE PINE

1 x 6	78,876	ft.
1 x 7	46,154	"
1 x 8	57,256	"
1 x 9	33,928	"
1 x 10	20,955	"
1 x 11	18,162	"
1 x 12	21,342	"
Random,	119,637	"

The above Pine is last year's cut, 1st, 2nd and 3rd Quality

Donald Fraser & Sons, Limited

CABANO, QUEBEC

MANUFACTURERS OF

Long Lumber

Rough and Finished

Shingles, Clapboard,
etc.

To Reach More Lumber Buyers

Canadian lumber manufacturers and wholesalers should advertise regularly and prominently in the

Canada Lumberman & Wood Worker

This paper reaches all the principal buyers of Canadian lumber at home and in Great Britain, United States, Europe, South America.

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High Grade

N. B. Cedar Shingles

Spruce and Pine Lumber Lath

Rossed Pulpwood

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Agents for Ontario . Laidlaw Lumber Co., Limited

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Selling Mill Stock

If you desire to get beyond the retail dealer and reach the builder and the architect it will pay you to advertise in the

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and Engineering Review

the only weekly paper in Canada for builders, architects, etc.

Send for sample copies and rates to the publishers

Hugh C. MacLean, Limited

Toronto, Ontario

WHITE and RED PINE and SPRUCE

A GLIMPSE OF OUR SAW MILL

"Pine that's Pine"

That's the kind of stock your customers want — high grade. That's the kind you get when you buy at Lumsden's Mills.

Quality and Capacity

The very highest grade stock that the choicest timber and modern methods of manufacture can produce, with every facility for quick shipment.

Write us your requirements

JOHN LUMSDEN, Lumsden's Mills, Quebec

The Great Pulling Power of a Little "Want Ad"

A "want" advertisement is a small thing both in size and in cost, but through a a small "want ad" great things have often arisen.
A subscriber to the Canada Lumberman and Woodworker recently inserted a small ad in the "WANTED and FOR SALE" Department of this paper and received

47 REPLIES

Have you some odd lots of lumber that you would like to move quickly?
Have you some second hand mill machinery you wish to sell or exchange?
Do you want to buy some special lots of lumber or machinery?
If so **YOU NEED** the assistance of the "Wanted and For Sale" Department.
Let us assist you in filling your next want.

Canada Lumberman and Woodworker

Toronto

Dry Lumber For Sale

View of Saw Mills, Pembroke, Ont.

White and Red Pine, Spruce, etc.

100,000 ft.	5/4 x 4/7	x 12/16	S.C.W.P.
200,000 ft.	6/4 x 4/7	x 12/16	" "
100,000 ft.	1 x 8 & up	x 12/16	" "
100,000 ft.	5/4 x 8 & up	x 12/16	" "
200,000 ft.	6/4 x 8 & up	x 12/16	" "
200,000 ft.	2 x 8 & up	x 12/16	" "

(All Box Out)

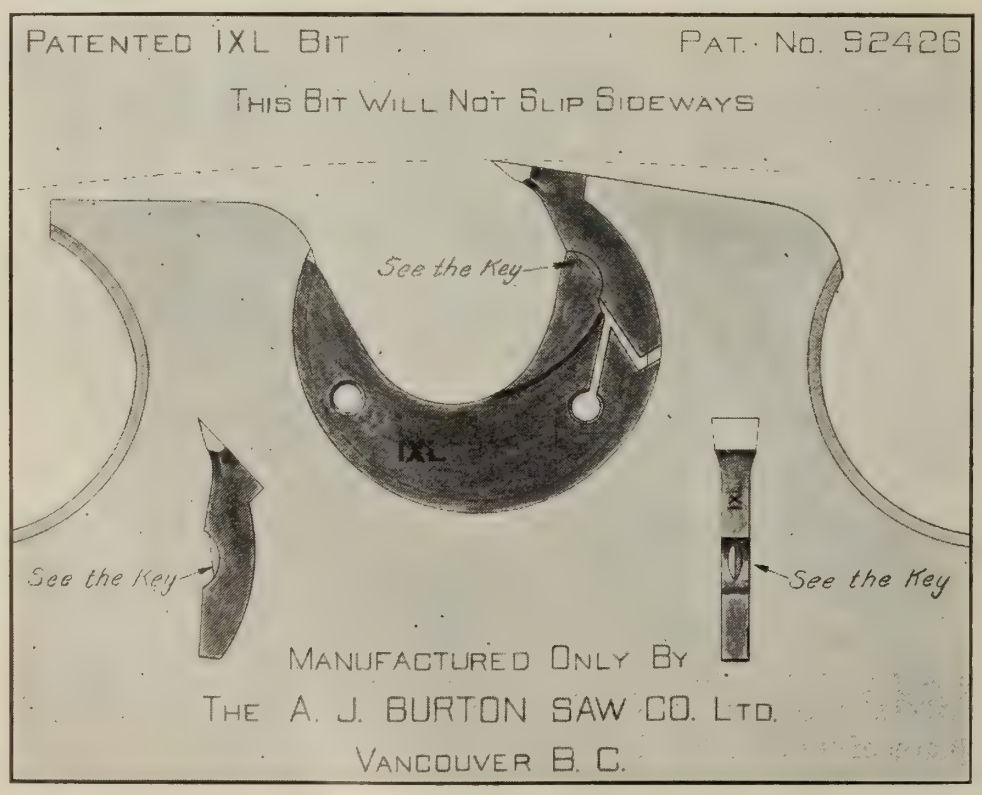
ROUGH OR DRESSED

Fast Feed Planing Mill in Connection.

Send us your enquiries

The Colonial Lumber Co., Ltd.

Pembroke, Ont.



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Saws Band, Gang, Solid and Inserted Tooth Circulars, Bits and Shanks

Carried in Stock at our Ottawa Branch. Special Attention given to all Saw Repair Work.

The A. J. Burton Saw Co., Ltd.

HEAD OFFICE AND FACTORY
VANCOUVER, B. C.
BOX 848
Phone 1748

EASTERN OFFICE, SALES-ROOMS AND REPAIR WORKS
374 Sparks St., OTTAWA, ONT.
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United States Manufacturers and Wholesalers seeking Canadian Business

Phone Main 6386

Mills: Knoxville, Tenn.
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The Atlantic Lumber Co.

Incorporated

Head Office: BOSTON, MASS.

Manufacturers Southern Hardwood Lumber

Canadian Branch
211 Kent Building, 156 Yonge Street, Toronto
Robert Vestal, Manager

ANYTHING IN OAK LUMBER

We have the following stock we are anxious to move, let us quote you on it:

250,000 ft. 1 in. No. 2 Com. and Btr. Basswood
1,000,000 ft. 1 in. No. 2 " " Hard Maple
10,000 ft. 1 x 4 in. 1 face and 2 faces Clear Birch Strips
50,000 ft. 2 in. 1sts and 2nds Unselected Birch
400,000 ft. 1 in. No. 1 Com. Unselected Birch
50,000 ft. 1 in. No. 2 Com. Unselected Birch
100,000 ft. 1 in., 10 and 12 ft. Moulding Birch

Other Northern Hardwoods in complete assortments

BRADLEY TIMBER & RAILWAY SUPPLY CO.
Second Floor Palladio Bldg., DULUTH, MINN.

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

Wistar Underhill & Nixon
Real Estate Trust Bldg., Philadelphia, Pa.
Canadian Rep. - W. J. Anderson, 288 South St., London, Ont.

Y NOT

buy your Hardwoods direct from

THE MANUFACTURER

Can Furnish Anything In---

Kentucky's Best

- Quartered White Oak
- Quartered Red Oak
- Plain White Oak
- Plain Red Oak
- Poplar
- Walnut
- Hickory
- Ash

Mixed cars furnished at same prices as straight cars.

J. V. STIMSON & CO.,
OWENSBORO, Kentucky

Pearl City Veneer Company

Manufacturers of
Veneers and Panels
IN ALL NATIVE WOODS

We have for quick shipment Three Ply End Panels, Drawer Bottoms, and Glass-backs

Our shipping facilities for Canadian Trade unequalled.
Enquiries solicited and quotations promptly given.

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Yellow Poplar Lumber Co.

Manufacturers of Band Sawed
Poplar, Quartered Oak, Plain Oak, Chestnut, Basswood

SPECIALTY:
Quarter Sawed White Oak

COAL GROVE, Ohio, U.S.A.

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

J. M. Clifford & Co.

Manufacturers and Dealers in all Kinds of

Hardwood Lumber

Poplar Basswood Cypress Elm Oak Ash Maple

We have a full stock of the above thoroughly air dried. Complete line and high grades. Prompt shipments on mixed cars.

Best Quality Uniform Grades Low Prices

GET OUR QUOTATIONS BEFORE BUYING

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MANUFACTURERS OF

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OUR SPECIALTIES:

Long Leaf Timbers and Implement Stock.
Short Leaf Finish.

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Manufacturers of Foreign and Domestic Hardwood Lumber and Veneers.

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Office and Mills: 2624 to 2634 Colerain Ave., CINCINNATI, OHIO.

R. A. Wells Lumber Co.

Wholesalers and Exporters of

Hardwood Lumber

of All Kinds

Special attention to Canadian trade. Prompt Shipments

Our speciality is 1" to 2" Gumwood, 1" to 2" Oak, both plain and quartered stock, 1" to 2" Ash and 1" Cottonwood.

WRITE US BEFORE BUYING

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THE SOUTHERN LUMBER AND BOOM CO.

SALES OFFICE, CINCINNATI

Band Mills: Valleyview, Ky., Glendora, Miss.

Manufacturers

OAK GUM
POPLAR CHESTNUT
ASH CYPRESS

Hardwoods for Quick Sale

We want to move the following stock quickly:

4/4 and 5/4 No. 2 Common and Better Basswood; 4/4 No. 2 Common and Better Brown Ash; 4/4 and 5/4 No. 2 Common and Better Birch, strictly unselected for color; 4/4 and 5/4 No. 1 and 2 Common Flooring Maple; and 4/4, 5/4, 6/4, 8/4, 10/4, 12/4 and 16/4 Firsts and Seconds Maple. All stock dry and in shipping condition, and either car or cargo shipments.

W. H. White Company Boyne City Lumber Co.
Wholesale Yards at Buffalo, N.Y.
Mills at Boyne City, Michigan

Duhlmeier Brothers Manufacturers Hardwood Lumber

MILLS { Kentucky, Tennessee, Mississippi.

Main Office and Yards { CINCINNATI, OHIO

We now have in stock dry and ready for prompt shipment 500,000 ft. of 1-in., 1¼-in., 1 1/2 and 2-in. plain Red Oak, nice soft texture, good widths, good lengths. Also a nice stock of Red and Sap Gum, Plain and Quartered Cut Oak. Let us quote you delivered prices.

OUR LUMBER IS MANUFACTURED RIGHT AND GRADED RIGHT. WE CAN SHIP QUICK.

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Long-Knight Lumber Co.

Manufacturers Indiana and Southern

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OAK, ASH, CYPRESS Our Specialties

Address all inquiries to the Main Office at—

INDIANAPOLIS, INDIANA

Theo. Fathauer W. M. Hopkins

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Our Specialties

Plain and Quartered White Oak. Figured and Plain Red Gum

Southern Yard - **Helena, Ark.**

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Manufacturers of and Dealers in

Hardwood Lumber

Indiana Quartered Oak
Ash, Basswood, Poplar

Main Office - FORT WAYNE, IND.

OUR SPECIALTY:

Anything in HICKORY LUMBER

Canadian Representative, MR. S. D. SMITH

W. M. Ritter Lumber Co.

MANUFACTURERS

Columbus : : Ohio

Band-sawed West Virginia Soft Yellow Popular, Basswood, Chestnut, Red and White Oak, all grades and thicknesses in stock, dry.

No Mixed Grades

We ship the product of our own mills only which produce annually over 100,000,000 ft.

Send us your inquiries direct or communicate with our Ontario Representative

John Hall, 314 Crawford St., **Toronto, Can.**

Phone College No. 2689

W. O. King & Co.

HARDWOOD LUMBER

Our Specialties

Michigan Hard Maple, Birch and Basswood

2452 S. Loomis St., CHICAGO, ILL.

DRY BEECH

We want to move 200,000 feet 5/4—No. 1 and better dry Beech. A Snap at the Price.

Also quick deliveries on NORTHERN HARDWOODS, YELLOW PINE, OAK DIMENSION, FIR, HICKORY, OAK, CAR STOCK and PILING.

Estabrook Skeele Lumber Co.

Manufacturers and Wholesalers

CHICAGO, ILL., U.S.A.

Bathurst Lumber Co., Ltd.

Bathurst, N. B.

Two modern saw mills equipped with the latest improved machinery enable us to carry always in stock a large assortment of Dry White Pine and Spruce.

Located on Bathurst Harbour for Water Shipment and on the Main Line Intercolonial Railway for Rail Shipment, we can

Reach Any Market in the World

Possessing the best standing timber in the Maritime Provinces we are able at all times to supply lumber of uniform high quality and strictly up to grade.

Stock Now Ready for Shipment

Clear and No. 1 Spruce

100M 1x4″ and up, fine stock, good widths
50M 1¼x4″ and up, fine stock, good widths
200M Scant 2x4″ and up, fine stock, good "

Merchantable Spruce

100M 1¼x6x10 ft. and up
200M 1¼x8x10 ft. and up
200M 1¼x9x10 ft. and up
50M 1¼x10x10 ft. and up
100M 1¼x5 and 7x10 ft. and up
1000M Scant 2x6x12 ft. and up
200M 2x8x12 ft. and up
300M 3x6x10 ft. and up
200M 3x8x10 ft. and up
100M 3x10x10 ft. and up

No. 3 Barn and Better Pine

5 Cars 1x6″, 10 ft. and up, nice lumber
5 Cars 1x8″x10 ft. and up, nice lumber
5 Cars 1x10x10 ft. and up, nice lumber
2 Cars 1x12x10 ft. and up, nice lumber
10 Cars 1x7″ and up, 10 ft. and up, nice lumber

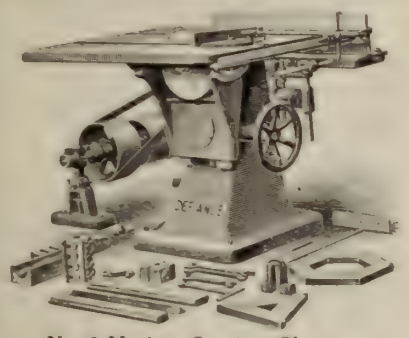
Log Run Birch

150M 1¼x4″ and up, 6 ft. and up
75M 1½x4″ and up, 6 ft. and up
25M 2x4″ and up

Cedar Lath

3 Cars 1⅜x⅜x4 ft.

Write for our monthly stock list giving full particulars of our lumber ready for shipment



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It is because of our long experience that we can offer you such high grade machines and the improvements we make on our tools constantly enables us to guarantee them to be the very best on the market.

WOODWORKING MACHINE EFFICIENCY

as demonstrated by the

"DEFIANCE" Method of Doing Things

We advertise our tools because we know we have the goods and because we want YOU to know we have the goods.

We cannot do without you and you cannot do without us, therefore we both loose money if you do not buy DEFIANCE machines

Give yourself a square deal and write for catalog and prices

Patent Variety Lathe

THE DEFIANCE MACHINE WORKS

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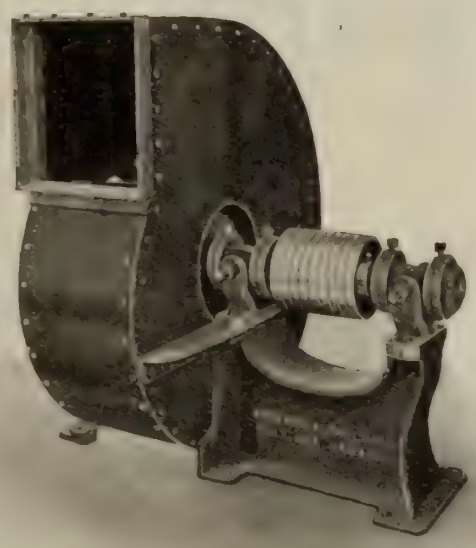
Representatives:—A. R. Williams Machinery Co., Toronto, (Ontario) St. John, N.B., (New Brunswick), Winnipeg, (Manitoba), Vancouver, (British Columbia), Reid-Newfoundland Co., St. John, (Newfoundland), Williams & Wilson, Montreal, (Quebec), W. L. Blake Co., Portland, Me., (Maine, New Hamphshire and Vermont)

Prominent Features of Sheldon Slow Speed Shaving Exhaust Fans



Slower Speed over ordinary Fans. Saving in Power and Speed of 25% to 40%. Special Taper Inlet which prevents clogging of Wheel and minimizes wear of Fan Blades.

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Toronto Office, 609 Kent Building

Agents

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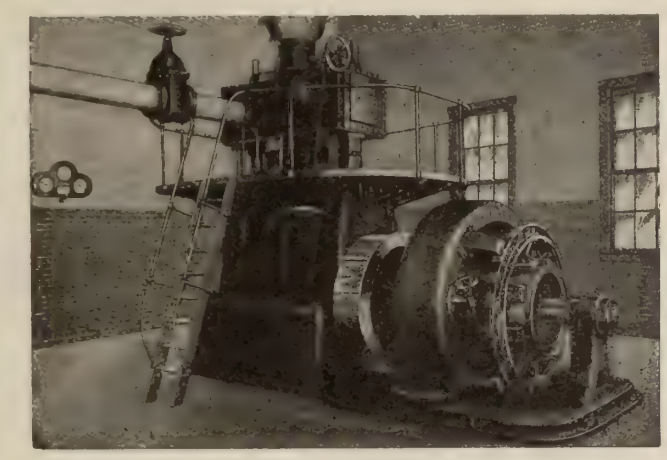
ROBB VERTICAL ENCLOSED ENGINES

For All Kinds of Industrial Power Plants

Speed just right for direct connection to Electric Generators, Turbine Pumps, etc.



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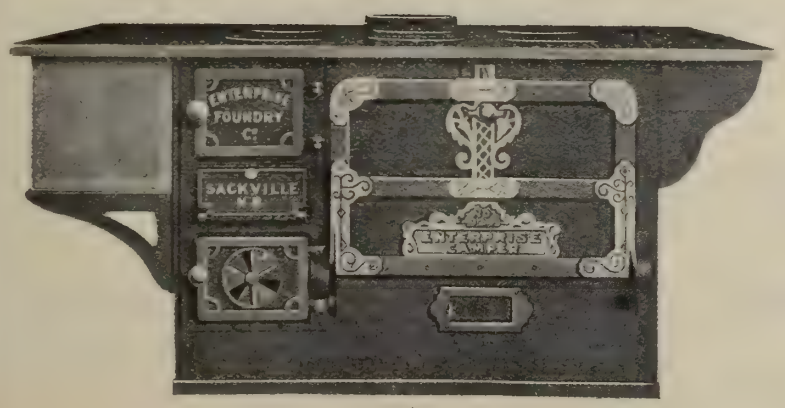
Sole Canadian Agents for 39-11

C. A. PARSONS & COMPANY, NEWCASTLE-ON-TYNE

Turbines, Turbo-Electric Generators, Turbo-Pumps and Compressors



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A Large Heavy Serviceable Steel Range, specially adapted for Lumber, Mining, and Railway Construction Camps, Boarding Houses, etc.

MADE IN TWO SIZES

The largest No. 10—30 has an oven 30 × 26 × 14 and six 10 inch covers. The oven of the 9—24 measures 24 × 26 × 14. The Tops of both are made of three heavy interchangeable Key plates. Both sizes can be fitted with waterfronts and the 9—24 with a 15 gallon copper reservoir tinned on the inside to prevent rust. Size of pipe collar 7½ inches. Length of wood fire box 31 inches. The body is of very heavy Bessemer Sheet Steel and is well braced and strengthened. Castings are made of the highest grade of pig iron.

Burns Coal, Coke or Wood **Send for Illustrated Circular**

The Enterprise Foundry Co., Sackville, N. B.

Mfrs. of High Grade Stoves, Ranges, Furnaces and Fire Place Fittings

Sold by: Fred J. C. Cox & Co., Winnipeg, Calgary, Edmonton. Enterprise Hardware Co., Saskatoon. W. T. McArthur & Co., Vancouver

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Sawn Lumber, Softwoods and Hardwoods, Dimension Timber

Dimension Timber in Stock at Montreal for Prompt Shipment

Mills at Lachute, P. Q.

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The Young Company, Limited

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Complete Stocks

Prompt Shipments Liberal Treatment

Warehouses at:

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River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

CORRESPONDENCE SOLICITED

Mills at:

St. Pacome, Que., Canada

On I. C. Ry. 75 Miles East of Quebec City

A Belt which Conveys ALL the Power

Practical men know the drainage of power from a slipping belt, ***and because they know,*** they are buying

GOODYEAR RUBBER BELTING

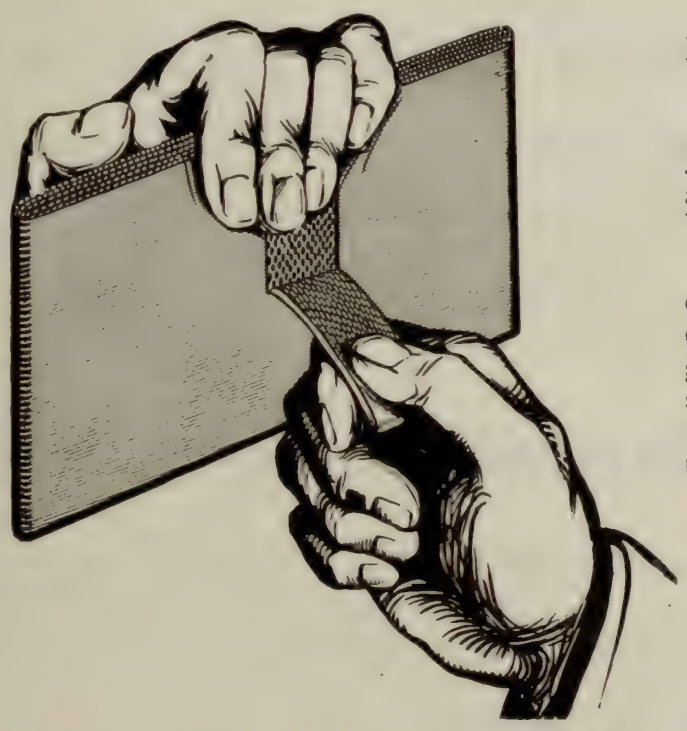
Which Neither Slips Nor Stretches

It is built up, layer upon layer, of close-woven, long-fibre, cotton fabric, rubberized and cured under Goodyear processes. And every Goodyear belt has in it the lowest possible minimum of stretch, because the belt is "cured" whilst stretched to the limit of safety in a special machine.

That is the Goodyear Method of Belt Manufacture

And the result is entirely satisfactory to belt users—a fact to which our enormously increased sales testify. What is the significance of this CONTINUED SALES INCREASE — 50% over last year? Simply that Goodyear Belting more than fulfills the claims made for it by the Goodyear people—who know what a belt should do, and make a belt to do it.

It has cost us less than $200.00 for claims or adjustment of every kind in connection with our total output for the past two years—a remarkable tribute to Goodyear reliability.



Look into the Belt for Yourself—Try to Tear It Apart.

Make a cut in the top layer—and then try to pull it apart. You will get a faint idea of its strength.

That is the result of forcing rubber at tremendous pressure through the fine cotton fabric—separating every strand—thus abolishing all internal friction or grinding. Whilst these layers of fabric are afterwards so compressed as to be almost homogeneous, the finished belt bends easily, the "duck" being so woven as to retain complete pliability in the finished belt.

For Main Drives and High Speed Pulleys GOODYEAR Belting is the Best

It has all the tensile strength necessary to absorb tremendous strain without slip, stretch or rent. The grip of rubber and the prodigious strength of hard-twist cotton fabric are united, and prove equal to every emergency.

Where the power transmitted is high, and great tensile strength is essential, Goodyear Rubber Belting proves its worth.

EVERY GOODYEAR BELT IS SUBJECTED TO A STRINGENT TEST BEFORE LEAVING THE FACTORY, and what is more, the materials used in the manufacture are also tested in the Goodyear laboratory before using.

IF YOU USE A BELT AT ALL IT WILL PAY YOU TO USE A GOODYEAR

Loss of power is loss of profit—and an inferior belt is dropping power all the time. Goodyear belting quickly earns its cost in power saved and trouble avoided.

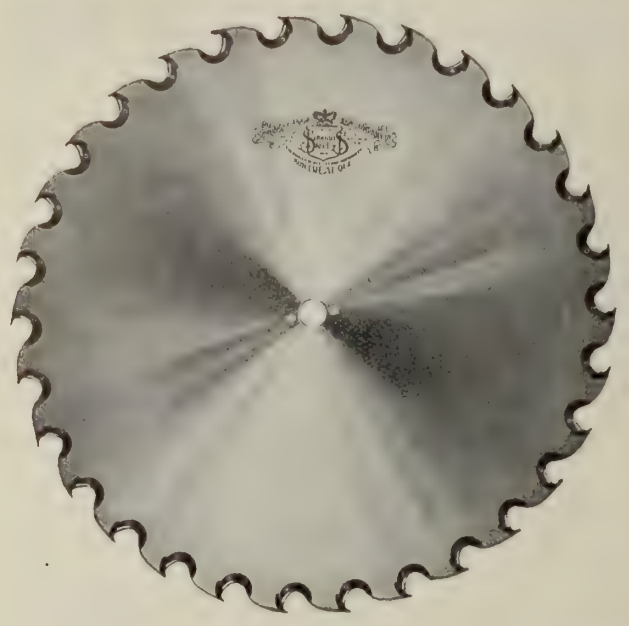
TWO HUNDRED AND FORTY ROLLS—A TOTAL OF 72,000 FEET

We have just received an order for this quantity of GOODYEAR RUBBER BELTING from one business concern in the west, for the equipment of interior elevators. Such an order shows supreme confidence in the quality of GOODYEAR Belting.
If we have not just the belt you require we will make it for you.
In the choosing of belts our booklet would be of great assistance to you. We supply it free. Write to our nearest Branch for one.

THE GOODYEAR TIRE AND RUBBER COMPANY OF CANADA, LIMITED

FACTORY - BOWMANVILLE, Canada

BRANCHES: Victoria, B. C. Vancouver, B. C. Calgary, Alta. Regina, Sask. Winnipeg, Man. London, Ont. Hamilton, Ont. Toronto, Ont. Montreal, Que. St. John, N. B.



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SIMONDS

Inserted Point Saw

Works Well Winter or Summer

Cuts all kinds of logs. Saws smooth, easy, and fast. Saves time, lumber and labor. This saw is not less expensive in the first place than other brands, but there is less trouble or expense in its up-keep and you will find that the experienced Sawyer makes this the particular point to consider when putting in a new saw.

Let Us Tell You More About the Saw, Quote Prices and send Catalog. Our Factory is in Montreal.

Simonds Canada Saw Co., Limited

VANCOUVER, B. C. **Montreal, Quebec** ST. JOHN, N. B.

In the United States—SIMONDS MFG. CO.

Quebec Shingles for Immediate Shipments

XXX is a Clear Shingle
XX is a 5in. Clear Shingle
X is a Sound Shingle

ONLY THREE GRADES BUT GOOD ONES

American Hardwoods, Oak Timbers, Ties and Car Material, Yellow Pine, Georgia, North Carolina Timbers and Shed Stock, Spruce, Pine, Hemlock, Lath and Shingles.

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A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

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May Advance Southern Freights

A great deal of interest has been evoked both in the United States and Canada by the recent increase in the freight rates upon lumber from points in the Southern States to Ontario and Quebec points. Lumbermen in the shipping districts affected were quick to raise objections to the proposed advances which were to have become effective on September 1st. Recent advices are to the effect that these objections have been presented successfully before the Interstate Commerce Commission of the United States and that the date upon which the tariffs are to become effective is postponed until December 30th, pending investigation by the Commission. So far as Canadians are concerned therefore, the matter is not likely to reach a stage at which it will be a subject of any interest to the Dominion Board of Railroad Commissioners until after the end of the present year, when some pronouncement has been made upon the subject by the Interstate Commerce Commission.

An indication of the interest which has been taken in the subject by manufacturers and shippers in the Southern States may be gathered from a forcible editorial article which appeared in a recent issue of the St. Louis Lumberman. "The question which presents itself in this case," says the above journal, "is a rather unusual one for the reason that the jurisdiction of the commission extends only over a part of the through haul, and there is no conceivable way by which it can reconcile, much less adjust, clashing rate-division differences between roads on this and the other side of the boundary. It could not accomplish this result even with perfect co-operation with the Canadian railroad commission, for, if we are correctly informed, the latter body has no control over rates on Canadian lines. Its authority does not extend that far.

"However, despite all the confronting difficulties, the commission is likely to hold up the advances until it can look into the situation carefully, as otherwise great hardship would be worked on lumber shippers to Canada with the higher rates going into effect at the scheduled time, September 1st. Considerable numbers of lumber, stave and cooperage concerns have contracts with Canadian customers, based on the present rates, and would suffer heavy losses thereunder if compelled to pay advanced freight charges from and after September 1st. One concern has stated that it would be caught on more than 100 carloads of its product.

"An idea of what the higher tariffs for Canadian delivery would mean may be had when it is stated that the rate to Montreal on yellow pine would be increased from 37 cents per hundred weight to 44 cents, or by approximately $1.75 per thousand. To Quebec the cottonwood and gum rate would be 41½ cents; the walnut, cherry and cedar rate 45 cents, and that on other kinds of wood (meaning mainly yellow pine), 42 cents. The general range of the advance to Canadian points is from 1 cent to 7 cents per hundred weight.

"Memphis and its immediate district do a considerable amount of hardwood business with Canada, and the advances therefrom are covered by Supplement No. 4 of Memphis Lumber Tariff No. 3. This tariff shows, in the case of Montreal delivery, 36½ cents for cottonwood and gum, as against 33 heretofore; 40 cents for walnut, cedar and cherry, as against 36 cents, and 37 cents for 'other kinds,' as compared with 33 cents.

"In truth, the tariffs the railroads would put in force on September 1st from both sides of lower Mississippi river lumber producing territory would be the sum of the locals, basing on Ohio and Mississippi river crossings. All of the increase, to the last penny, would, of course, go to the American railroads, which claim that their divisions of the through rates are not sufficient for the service rendered, and that the Canadian roads refuse to part with any portion of their excessively large division. The real facts, though, as to the divisions cannot be ascertained until the Interstate Commerce Commission shall have investigated the whole subject.

"It is almost needless to add that the proposed advances have been strongly protected by lumber shippers in the Southeast, the Southwest and at such important centers as St. Louis, Nashville, Memphis, Cairo, Cincinnati, Louisville, Buffalo and other places. Prominent among the organizations that have protested may be mentioned the Georgia-Florida Saw Mill Association, the Cincinnati Lumbermen's Club, the Hardwood Lumber Exchange of Buffalo, the Nashville Traffic Bureau, the rivers and rail committee of the Lumbermen's Club of Memphis and the Memphis Freight Bureau."

The above reference to the inability of the Canadian Board to deal with questions of freight rates, is of course based upon a misapprehension, as that body can and does frequently deal with them. Its jurisdiction however, is like that of the United States Interstate Commerce Commission, strictly limited to business within the boundaries of its own country and the development of difficulties arising out of through rates from a point in one country to a point in the other, will require the creation of something in the nature of an International Board, such as has already been discussed by representatives of the two commissions.

Order in the Retail Yard

One of the indirect results of the extremely wet weather which has prevailed during the past few months is that retail lumber dealers have been forced to give more consideration than formerly to the question of getting their stocks under cover. The wet weather of course, has only been a contributing cause, as this tendency has been growing more and more noticeable of late. There is little or nothing to be said in favor of the old-fashioned method of conducting a retail lumber yard which included the piling of stock in the yard in any old place and in any old manner, so that the appearance from the buyer's point of view was far from inviting. When a man goes into a yard to purchase lumber, nothing makes so favorable an impression upon him as nicely piled stock, kept under cover and well arranged. Not only does it incline him to come back with further orders later on, but it persuades him that the company's stock is good and that he would do well to pay a high price for it rather than look for bargains in some other yard where the stock is not so well cared for. This is simply one of the natural tendencies of human

nature. In the city we all admire the well dressed shop windows and we think of them whenever we are considering our purchases. Similarly a lumber consumer will bear in mind the yard where he can get good stock easily and where the manager seems to believe so much in the quality of his stock that he looks after it as carefully as though it were something far more perishable.

Retailers can scarcely give too much attention to this matter. Properly worked out it will do more to make profits for a business than any other feature of the management. By way of a general suggestion as to what can be done we reprint a paragraph from the Lumberman's Review which recently discussed the subject as follows:—

One large shed comes to mind where special effort is made to keep all of the oldest lumber moving out and the new, bright stock going into bins. The sills of the bays are so constructed, being bricked up, that the driveways are easily kept clean and no waste is allowed to accumulate under the piles in the bays, and when a section is refilled with lumber any waste that may have collected is removed. In stormy weather the employees are brought into the sheds, trucks are placed ready for delivery when the weather permits, every pile is squared off at the top and the ends are gently tapped into position with a short piece of 2 x 4 until every pile in the shed is as regular on the end toward the driveway as this careful work can make it. The result is a very orderly shed with stock perfectly arranged for easy handling, and as it greets the eye of the regular customer or the prospective purchaser, he is favorably impressed, for he assumes at once that the business methods of the concern warrant the expectation that his dealings with it will be along correct lines. First impressions are most important in displaying lumber on the retail yard, as in practically every line of activity.

Sacrificing Pulpwood for Christmas Trees

A Montreal nursery man by the name of S. S. Bain has made complaint to the Forestry Branch of the Department of the Interior that a great deal of valuable pulpwood from the province of Quebec goes over to the United States annually to supply United States families with Christmas trees. The forestry branch will look into the complaint and do what it can to remedy any waste which they may find to exist. This matter has been occupying public attention each year in the daily press to the extent of one or two paragraphs annually and has made quite an interesting little piece of reading for those who have no other concern in the matter than to consider it as an interesting piece of reading. The situation however, is reported, by those who have looked into it, to involve quite a serious loss. There is some element of doubt as to the actual extent of the loss and there are people, who claim to be posted, who state that the loss amounts to practically nothing. It will be well therefore, if the Forestry Branch of the Department of the Interior will set at rest all doubt and try to remove any cause for complaint.

According to the report by Mr. Bain, a large number of men from the United States come to Canada each year and buy up thousands of spruce trees from 6 to 15 feet high, paying for them at the ridiculously low price of ¾ to 1½ cents each in the woods, and the farmer has to haul them to the railway. On its face, such a statement seems to be almost absurd. How a farmer can cut such a tree and transport it to the railway for so low a price is difficult to conceive. If he were trying to clear his land it might be different. It would be on a par with cutting a crop of grain before it was ripe. These trees in a few years will grow into fair sized sticks of pulpwood, with a market value of several dollars a cord. It is to be presumed that the farmers in Quebec know this as well as anyone else. In the past it has been questionable whether the farmer did know this, but to-day every one in the province of Quebec knows the value of pulpwood and probably if there has been wasteful destruction of valuable resources in the past, the future will see a change, inasmuch as no one is ignorant to-day of the value of his spruce trees.

The Canadian Forestry Association has always taken an interest in this matter and has gone so far as to recommend the passing of legislation to prevent the exporting of spruce and balsam trees for Christmas uses. One of the most wasteful features of this matter is the fact that after the use to which these trees are put for a few hours on Christmas day, they are practically useless. They are in fact completely wasted so far as their actual value is concerned. It will be a good thing if the forest branch will make a definite report upon the subject and, if necessary, recommend drastic action by the government.

United States Imports of Pulp and Paper

Official figures covering the foreign trade in pulp and paper of the United States during the fiscal year ended last June 30 have just been made public. They do not disclose a wide divergence in the course of trade, but tend to prove that the paper industry during the twelve months under review has easily held its own, and has even done a little more.

While the progress in some branches may not have proved as substantial as some people would like, yet it has been progress, and the general tone of the market has been healthy, despite some internal dissension and a liberal number of drawbacks.

The quantity of print paper imported during the twelve months ended June 30, 1912, aggregated 59,789 tons, valued at $2,482,968, as compared with 57,206 tons, valued at $2,567,670, during 1911, and 46,455 tons, valued at $1,920,801, in 1910. The increase over last year was only 2,584 tons, and the value decreased $84,702. Compared with 1910, the increase in quantity was 13,334 tons and in value $562,167.

The average price of imported print paper at the point of shipment, during the fiscal year of 1911-12, was $41.53 per ton, a decline of $3.35 as compared with the previous year, when it was $44.88. During 1909-10 the per ton price averaged at point of shipment $41.35.

Canada's share of the imports of print paper during the last fiscal year was 55,563 tons, valued at $2,101,086, as against 53,144 tons, valued at $1,969,102, in 1910-11, and 43,388 tons valued at $1,615,100 during 1909-10. The figures show an increase of 2,449 tons and in value of $131,984 over 1910-11, and of 12,175 tons and in value of $485,986 over 1909-10. The average price of Canadian print paper at the point of shipment during the last three fiscal years was shown from these figures to have been—in 1911-12, $37.81; in 1910-11, $37.07 and in 1909-10, $37.22.

Wood pulp, mechanical and chemical, was imported during 1911-12 to the extent of 534,804 tons, valued at $14,218,922, as compared with 550,897 tons, valued at $13,980,357 the previous year, showing a falling off in imports of 16,093 tons and in value of $238,565. During 1909-10 the imports were 423,720 tons, valued at $11,708,014; there was therefore an increase during the last fiscal year over 1919-10 of 111,084 tons, and an increase in value of $2,310,908. Of mechanical pulp there were imported during 1911-12 215,931 tons, valued at $3,516,537, as against 263,501 tons, valued at $4,198,760, the previous year, and 159,678 tons, valued at $2,542,725, in 1909-10. The figures show a decline from last year of 47,570 tons, and in value $528,812. The average price of the mechanical pulp imported has been 35 cents per ton higher than during 1910-11, and 36 cents per ton higher than during 1909-10, the respective average prices at the point of shipment being 1911-12, $16.28; 1910-11, $15.93, and 1909-10, $15.92.

Chemical pulp, unbleached, was imported to the extent of 238,349 tons, valued at $7,266,271, as compared with 206,840 tons, valued at $6,286,615, during 1910-11, and 187,288 tons, valued at $5,831,616, in 1909-10. The figures show an increase over last year of 31,500 tons, and in value of $979,556, and over 1909-10 of 51,052 tons, and in value of $1,434,655. The average price per ton of imported unbleached pulp at the point of shipment during 1911-12 was $30.48, com-

pared with $30.39 during the previous year, and $31.14 during 1909-10.

The imports of bleached pulp during the twelve months ended June 30, 1912, amounted to 80,537 tons, valued at $3,436,114. During 1910-11 they were 80,656 tons, valued at $3,436,114. During 1910-11 they were 80,656 tons, valued at $3,494,982, and during 1909-10, 76,757 tons, valued at $3,394,273. There was therefore a decrease, as compared with 1910-11, of 119 tons, and in value of $58,868, but compared with 1909-10 there was an increase of 3,780 tons, and in value $41,841. The average price of bleached pulp at the point of shipment has declined during the last three years. During 1911-12 it was $42.66; during 1910-11, $43.33, and during 1910, $44.18.

The pulp wood, rough, peeled and rossed, brought in during 1911-12 aggregated 901,270 cords, valued at $5,834,828, as compared the previous year with 869,955 cords, valued at $5,565,273, and with 1,000,342 cords, valued at $6,392,023, during 1909-10. The figures of the last fiscal year therefore show an increase of 31,315 cords and in value $271,555 over 1910-11, and of 99,072 cords and in value $557,195 over 1909-10. The average value of a cord of pulp wood at the point of shipment was, according to these figures, $6.47; during 1910-11, $6.39, and during 1909-10, $6.38.

Reduction of Mill Waste—An Important Factor

While the forestry association of Canada are doing their best to spread the gospel of conservation of our forest resources and have met with great encouragement, they are not the only ones who are going about the work in a practical manner. Their chief work is to interest the public in the actual preservation of the forests and the proper exploitation of timber, with a due appreciation of the importance of seeing that the growing timber resources of the country are not destroyed. At the other end of the lumbering business, there is an equally important opportunity, namely in the using up of everything which has been cut and preventing the great waste which has been so regrettable a feature of the saw-milling business in the past. One of the most important factors in the modern development of economic methods of wood utilization is the commercial instinct of the manufacturer of machinery. In the wood-working machinery business, perhaps more than in any other lines of manufacturing, the leading firms have anticipated the requirements of the industry to which they cater and have led the way in bringing about important reforms. They have not waited until a new class of machine was required, but have gone ahead, developing new machines which not only perform their work more efficiently than the old machines, but which do a new class of work altogether, namely, use up raw material which was formerly wasted and make it into a first class manufactured article for which there is already an urgent demand.

In the making of box shooks for instance, wood is being used to-day which formerly was wasted and was a source of expense to the firm which had to handle it and then throw it away. One firm of manufacturers of box shooks, describing the raw material which it uses, says: "one half of the lumber we use is mill waste, so poor and trashy that we do not go to the expense of measuring it, but buy it by the thousand pounds. The balance of low grade lumber we use is of not much greater value."

There will be a time in the not far distant future when a story like this will attract no attention and we will look back with wonder upon the days when most of the saw mills wasted during the course of a year, enough raw material in the form of edgings, slabs, trimmings, etc., to keep a large shook-making industry in supplies. The chief difficulty during the past seems to have been the lack of demand for the shooks and the consequent excessive cost of freight when compared with the prices which the shooks would bring. The rapidly increasing activity of manufacturing industries in many parts of the world promise to remedy this situation before long and to make it profitable for all saw mill owners to work up their trimmings and defective stocks into shooks or to sell them to some firm of shook manufacturers. The day is probably near at hand when even the surplus sawdust which cannot be used up in some of the mills will have a sufficient value to give it a regular place on the market. The problem to-day seems to be solely one of freight charges as the demand for all these products now exists in one form or another. There is little doubt that the multiplication of railways and the increasing demand for packages and the bi-products of wood will reduce the waste material in connection with the saw-milling business to a practical minimum. When that day arrives, it will be found that one of the chief factors in bringing about this result has been the wonderful inventive genius of the machinery manufacturers.

Editorial Short Lengths for Busy Readers

It will be but a very short time before the United States will have to look to British Columbia to supply her with lumber, according to Hans Dirks, a prominent lumberman of Kansas City.

The Dry Goods Section of the Retail Merchants' Association decided at their annual meeting in Toronto recently to forward to the Dominion Government a resolution opposing the duty of fifteen per cent. which is charged on British packing and wrapping-cases and twenty per cent. on foreign packing-cases.

The circular sent out recently to members of the Canadian Lumbermen's Association calls attention to the fact that during the fiscal year ended June 30, Canada sent the enormous total of $11,796,333 to United States for boards, planks, deals, joists and scantling. This represents an increase over the previous fiscal year of 363,838,000 feet.

For the purpose of founding an organization through which Germany's trade in Canada may be developed, Dr. H. Hammann, of Berlin, recently visited Toronto enlisting members in the German-Canadian Economical Association. In discussing some of the lines, including manufactured paper goods, in which Germany has not achieved a fair share of Canada's patronage, Dr. Hammann declared that the defeat of the reciprocity pact had saved Germany from a powerful rival in the markets of the Dominion. Although the surtax imposed on German goods coming into Canada had been removed, German exports had not increased in volume to the extent that was predicted. The imposition of the surtax, he said, was a serious blow to Germany's trade, and moreover it permitted other European nations to gain a position in the Canadian markets from which they could not easily be dislodged. German manufacturers in all lines, Dr. Hammann feels, must put forth a special organized effort to capture the trade of the Dominion.

W. J. Laite, managing editor of the South African Commerce and Manufacturers' Record, who is making a tour of the world in the interests of the Union Government of South Africa for the purpose of investigating tariff conditions, said in an interview at Toronto recently that the thing which impressed him with greatest force in Canada was the tremendous waste in timber. "It is absolutely criminal," he said, "and will cause present generations to be remembered by posterity as ruthless wasters of national wealth."

Do you ever take your trade paper home? Try reading it in comfort and at leisure, instead of giving it a mere hurried glance during the pressure of business at the office and then laying it aside for the incidental future reference that may never be made. It will give you a worth-while thought now and then; certainly keep you in more intimate touch with the field where your interests lie; and possibly suggest effective plans for a profitable business campaign. Then again, the women folks, the bright boy or girl, we venture, would find considerable in it to interest them. Try it.

Pulp and Paper Making in Nova Scotia

Progressive Development and Expansion of Macleod Pulp and Paper Company, Milton, N. S. — Owners of Extensive Limits and up-to-date Mills

Written specially for the Canada Lumberman—By W. D. Taunton

Down in Nova Scotia there is a town called Mersey. Like the Liverpool of the old world, it is situated on the river Mersey. But the Nova Scotia Liverpool and River Mersey are not as large nor yet as important as their namesakes across the pond. They are, however, large and important as Nova Scotia towns go. Liverpool is a flourishing town and a beautiful town. It has a magnificent harbor and is an important shipping port. The River Mersey has a reputation for salmon, and other things. The "other things" include the greatest water falls in the province, and the mills of the Macleod Pulp & Paper Company, Limited.

Situated on one of the most picturesque spots in the beautiful country of Queens, about five miles distant from Liverpool town and the shipping piers, the mills are reached either by waggon road or a branch railway, formerly known as the Liverpool and Milton Railway and now a part of the Halifax and Southwestern, a road traversing the south and western shores of Nova Scotia from Halifax to Yarmouth, Liverpool being about half way between the two ports. The scenery in this part of the country is grand and inspiring. Just above the village of Milton are two great falls and here the river, so far as shipping purposes go, practically ends. A series of great lakes are above, extending for miles through an unbroken yet highly delightful country, the haunt of the timber and the fisherman. With a watershed of six hundred and eighty square miles, and a reservoir of some twenty square miles (which will be enlarged to sixty in the near future), the waters come tumbling down the river and over the falls, supplying power to run the two mills night and day, summer and winter.

For the purpose of the manufacture of pulp and paper the mills have a natural situation unequalled in Maritime Canada; a great watershed fed by four counties, unsurpassed shipping facilities, cheap transportation and nearness to the markets. Added to this are an abundant supply of raw material, intelligent labor and a delightful climate.

Unique Shipping Advantages

Liverpool is the point of shipment for the product of the mills. Steamers and sailing vessels take in their cargo here, after it has been brought in by rail to the ship's side. Water rates are low. Liverpool is not much more than a day's sail to the New England ports, and as near to England as any other Atlantic port. Shipments can be made and are made by water to United States and English ports all the year round. This is one of the great advantages enjoyed by the Macleod mills.

The company own 25,000 acres of stumpage and timber land, but on this they do not have to rely. Hundreds of farmers cut and sell to the company and they also buy the timber as it stands and do

Macleod Pulp and Paper Company's Mills, Rapid Falls, Milton, N. S.

the cutting and logging themselves, giving employment in the winter season to as many as four hundred men. Labor is reasonable, intelligent and always available.

In addition to the pulp and paper mills the Macleod Company operate a sawmill at Mitchell's Brook, where white pine, spruce and hemlock lumber and laths are manufactured, the output being about one million feet each year. Logging operations, however, are not extensive, the distance from the stump to the mill not being of any consequence. In this respect the company occupies a unique position, both as regards the lumber and the pulp mills.

Output of the Pulp Mills

At the pulp mills from twelve to fourteen thousand cords of wood a year are used, and the daily output is one hundred tons of pulp and twenty tons of cardboard. Of the output, sixty per cent. this year goes to the Old Country. The home market, however, promises to take care of the whole output in the near future.

It is the aim and intention of the company to use up all their pulp in the manufacture of cardboard. To-day they are turning out a very superior grade of board goods and colored papers and the total output of board is sold months ahead of manufacture. To meet the growing demand the company will put in another board mill having a capacity of 6,000 tons yearly. With the new board machine all the pulp will be converted into paper and thus the export

John R. Macleod, Pres. & Gen. Mgr.

F. B. McCurdy, M. P., Director

Sidney Downer, Manager

of pulp will be stopped, more labor will be employed and the company's earnings greatly increased.

The company have a good market for their product in England. It may surprise many to learn that the tickets used in the London tram car system are made from colored board manufactured by the Macleod pulp mill, the company having a contract with the City of London. Cadbury's cocoa is put up in boxes made from the product of these mills, and Lever Bros. use up many tons for receptacles for Sunlight Soap.

There are two up-to-date pulp and paper mills in this enterprise. One is situated at what is known as Rapid Falls. This is the "upper" mill, with 3,500 horse power developed. Here are situated the offices of the company, the boarding house for the men, etc. The second mill is located half a mile down stream at what is known as Cowie's Falls, where there is 2,500 h.p. developed. Both mills lie alongside the railway track and the logs are fed into the mills by means of a canal.

The water power of the Mersey is the greatest in Nova Scotia and it is proposed to utilize it for commercial purposes. A company has already been organized and incorporated with that end in view, the idea being to send the power into the city of Halifax, a distance of about 130 miles.

The Men Behind the Company

The principal owners, or, in fact, the sole owners to-day of the Macleod Pulp & Paper Company, Limited, are John R. Macleod and F. B. McCurdy, M.P. The mills were established some years ago, but did not reach a paying basis until Mr. Macleod became interested, reorganized the company and introduced new machinery and modern business methods. Financially the enterprise is a great success and the future looks exceedingly bright. Mr. Macleod is one of Canada's bright young business men and has already made a reputation as a successful promoter and financier. He graduated from Dalhousie Law School in 1898 and on his admission to the bar practised law in Halifax, first in the office of Hon. J. Y. Payzant, President of the Bank of Nova Scotia, and subsequently in the firm of Rawlings & Macleod. Turning his attention to company business, he organized and promoted the Nova Scotia Fire Insurance Company, of which he was the capable manager for several years. He also organized Stanfields Limited, Truro, N.S., probably one of the most successful industrial concerns in eastern Canada, and the Macleod Pulp & Paper Company, of which he is the President and Managing Director. All of these concerns have been remarkably successful. Last year he became a member of the firm of F. B. McCurdy & Company, but still remains on the directorate in an advisory capacity. He is also a director of the Maritime Telegraph & Telephone Company, which last year purchased the Nova Scotia Telephone Company.

Mr. F. B. McCurdy is one of the best known financial men in Canada. He established the firm of F. B. McCurdy & Company in Halifax thirteen years ago, and to-day it is the largest investment house in eastern Canada, with offices in Ottawa, Montreal, Sherbrooke, Halifax, Sydney, Charlottetown and St. John's, Newfoundland. The firm are members of the Montreal Stock Exchange. Mr. McCurdy is a banker by training and previous to going into the brokerage business was assistant to Mr. H. N. Wallace, General Manager of the Halifax Banking Company, since merged in the Canadian Bank of Commerce. Mr. McCurdy won special distinction one year ago, when he was elected to represent Queens-Shelburne in the Federal Parliament.

The manager of the Macleod Pulp & Paper Company is Mr. Sidney Downer, a young man of outstanding ability. Previous to taking his present position he was with the Newfoundland Timber Estates Company, the proprietors of five large sawmills and six thousand square miles of timber land, turning out forty million feet of lumber annually.

Newfoundland Needs Canadian Hoops

The Canadian Trade Commissioner at St. John's, Newfoundland, in a recent report, writes as follows:—"Canadian manufacturers of barrel hoops will not, it is hoped, overlook the importance of the recent inquiry forwarded from this office to the Department of Trade and Commerce referring to coiled elm flat hoops. The quantity of 100,000 to 250,000 is merely a trial order, as millions are used every year by manufacturers of barrels in this city.

"That conditions are gradually but surely undergoing a change in Newfoundland is further evidenced by the additional fact that the fishermen who in the past supplied the requirements of this branch of industry, seem to be no longer in a position to do so. The kind of hoop supplied by the fishermen was no longer popular, it being of half-round birch with the bark left on, and the crudeness of the make such as did not add to the appearance of the finished barrel. These hoops were usually made in the slack season when the voyage was over, and were therefore a source of additional income for the fishermen. In recent years, however, by reason of death and old age the old time fishermen are disappearing one by one from the field of action, and the young men who are expected to fill their places thus made vacant are not as a rule disposed to take any too kindly to the vocation of their fathers, but prefer to take up a trade or other employment in the city; consequently the supply of hoops is getting less every year.

"These conditions are well known to those still employed in the business, with the result that they hold back their goods until the market is bare, and the needs so urgent that fancy prices are often realized. The consumers now find themselves compelled to look to outside manufacturers for an article which will not only improve the appearance of the package containing fish for export, but can be got for a more reasonable price. This the local manufacturer is unable to furnish. It behooves the Canadian manufacturer, therefore, to appreciate the importance of this market, and to assist in removing every obstacle in the way of Canada getting full control thereof.

"There is no denying the fact that if the Canadian manufacturer will be satisfied with a modest profit, and give special attention to the requirements of this market, he will be a big factor in bringing Newfoundland into closer commercial relations with the Dominion. Although importing hoops is entirely a new thing for Newfoundland, all the oak staves and heading used in the manufacture of oil barrels are imported.

"During the year 1910, 524,064 dressed oak staves, valued at $24,-112, and 20,924 pairs of heading, valued at $6,420, were imported from the United States, while Canada only supplied 750 pairs of heading, valued at $105.

"The year 1911 shows a falling off in importations of staves, but increase in heading, as is shown by the following figures: Staves, 385,930, value $18,728; and heading, 28,730, value $9,019, all of which came from the United States.

"The duty on staves is $5.50 per 1,200, and on heading, 5c. per pair. The duty on hoops is 40 per cent."

Importations of Mahogany into Canada

Felix S. S. Johnson, U. S. Consul at Kingston, Ont., in a recent report says:—"The enormous increase in building operations throughout Canada has been instrumental in increasing imports into this country in products which some fifteen or twenty years ago could hardly be noticed in commercial statistics. Mahogany, for instance, is an article which Canada half a generation ago had very little use for, one reason being that in the early growth of the country office buildings, houses, and hotels were erected rather on a cheap scale. Mahogany in Canada has always been considered somewhat of a luxury, particularly for office fittings and decoration purposes. Today this feeling has somewhat changed. Mahogany is very generally used; in fact in almost every large banking house or commercial office one generally looks for the finely polished desk and comfortably upholstered mahogany chair.

"That Canada is now commencing to build her own railway cars is another factor in the importation of mahogany. Although this is the greatest timber country in the world, the fact remains that no wood grown here can be used for manufacturing good cars. Hard wood in Canada is short grained and it is difficult to get anything that will equal mahogany for durability and finish. Automobiles also require mahogany to be properly finished, and in the last five years large amounts of this wood have been imported by automobile manufacturers who have opened factories in Canada.

"The wealth of Canada, which has increased tremendously per capita, naturally calls for more luxurious living. In the old days the best of furniture in the house might be made of any hard wood or even pine, with a veneer finish, while now nearly everything must be mahogany. The wood in the rough brings sufficiently high prices, selling in large lots at $110 to $115 per thousand feet. Although this wood has always been looked upon as more or less of a luxury its use now is becoming general, because at last people are beginning more and more to feel the advantages which it has over other woods; but the supply has been decreasing during recent years, causing corresponding increase in the price.

"Tabasco mahogany comes from the southeastern part of Mexico and there is much competition between New York and Boston firms and large dealers in England for the shipments of the few companies operating in the Tabasco wood. One of the largest shipments from the territory received lately into New Orleans approximated 4,000 tons.

"Canada imported during the fiscal year ended March 31, 1912, a total of 2,696,455 feet of mahogany, invoiced at $314,409. Of this 301,316 feet came from England (evidently South African mahogany) and 2,364,309 feet from the United States (evidently Mexican and Central American mahogany). This came in free of duty. There were also considerable imports of mahogany veneering, which is classed in imports with veneers of oak, rosewood, cedar, and walnut, which pay 7½ per cent. ad valorem under the general tariff, and of which imports in the last fiscal year were $251,522, all from the United States."

Quebec's Timber and Pulp Resources

United States Consul Willrich Reports as to Paper and Pulp Matters in that Province

Gebhard Willrich, United States Consul at Quebec, in a report refers to Quebec's resources as follows:

The decline in the exports of pulp wood was not due to a scarcity of this article, but probably to a corresponding increase in the exports of wood pulp. Conditions are highly favorable to the production, at a minimum of cost, of the various classes of pulp, chiefly mechanically ground, by reason of a superabundance in many parts of the province of water power and of vast quantities of raw material.

It is another matter when it comes to the manufacture of paper, requiring coal, which must be imported, to produce power, and highly skilled labor, which can not be obtained for sections of a country as yet without many of the advantages of development. The manufacture of pulp, in other words, has been found most advantageous near the source of power and of raw material, and that of paper near the points of distribution and the supply of skilled labor.

Two large Quebec companies, now making pulp, have decided to build paper mills in the United States. Some of the paper mills already established here have, it is true, increased their capacity during 1911, and a number of new ones have been built, but this was to be expected in view of the increasing demand for paper by the home market.

In the general lumber exports from this port to trans-Atlantic points and to the United States during 1911 the increase in some lines was much more than counterbalanced by a reduction in others, resulting in a considerable diminution in the export trade of wood goods from the St. Lawrence Valley. The decrease amounted to 34,350,253 feet board measure. The unmanufactured wood products from this district to the United States suffered the greatest decrease, while manufactured products showed a decided increase during the past year.

The timber resources of this province are enormous, though greatly diminished in past years by forest fires. The privately owned timber lands comprise about 6,000,000 acres and are able to supply 500,000 to 1,000,000 cords of wood per annum for years to come. The island of Anticosti alone is able to produce 80,000 to 100,000 cords per annum for years, a good portion of which, however, will probably be converted into pulp in the near future, as a large mill is now in process of erection there. Pulp mills are also in process of construction in other parts of this district, so that the pulp industry, especially in this district, is bound to witness a great boom in the near future.

The forests leased to lumbermen by the Provincial Government total about 45,000,000 acres. The first of these were leased in 1825 for nominal sums, such leases being good for one year only. Since 1841 such leases were made renewable from year to year, and they practically became private property, subject only to Government regulations and the payment of certain stumpage dues.

Lumbermen were originally required to pay as a guaranty one-quarter of the estimated stumpage dues annually. Later on a bonus was substituted for this payment in order to obtain such leases. Since 1868, however, leases were put up at auction sale, with the result that bonuses varying from $8 to $1,000 per square mile have been obtained at these sales.

About 69,000 square miles of forest lands of this province have thus passed under lease, and the premiums, or bonuses, as they are termed, between the years 1867 and 1906, represented the sum of $3,250,000, or an average of $63.74 per square mile.

In 1851 an annual or ground rent tax was imposed, payable at each yearly renewal day of such leases. In 1868 such tax or rent amounted to $2 per square mile, which was increased to $3 in 1887 and to $5 in 1910. In addition to this, holders of timber licenses have to pay stumpage dues to the Government for all timber cut by them on their limits, which dues are fixed for a term of ten years.

To assure, as far as possible, the continuance of forest growth, no trees can be cut of less diameter than from 7 to 13 inches, according to the class of timber, and in order to promote home industry it has been provided that no timber cut on these limits, or lands owned by the Crown, can be exported in the raw state, but must be manufactured in Canada.

These regulations had their first full year's trial during 1911, and while the reasons advanced for their enactment can not be questioned, and many persons hold that they have proved beneficial and in the interest of timber conservation and the encouragement of an important home industry, others claim they have resulted in great hardship to those owners of timber limits who were unable to convert their wood into pulp, or could not dispose of it to those who were able to do so.

The declared exports of pulp wood during 1911 declined somewhat, but this was the case likewise with lumber, upon which there were no export restrictions. The first five months of 1912, moreover, show such increase of pulp wood exports over the corresponding period of 1911 that it may be assumed that the decrease in wood exports for 1911 was a temporary one. The vast pulp wood resources of this province will certainly permit of large exportation of wood for years to come, for no other country, it is claimed, possesses such a large and valuable forest area as Quebec, much of which has only lately been made accessible through the construction of new lines of railroad.

During last year forest reserves were created by the Provincial Government in fourteen different districts in order to protect the forests and to insure an adequate future supply of water. A commission was also appointed to investigate the water powers of the province with a view to further developing them for industrial purposes, etc.

Exports from the Rimouski District

United States Consul F. M. Ryder, Rimouski, Que., in a recent report shows that the exports of wood and manufactures of wood from his consular district to the United States during 1911 was valued at $2,279,621, against $2,432,080 during 1910. The principal decreases were as follows: Lumber, 1911, $931,402, against $1,036,460 in 1910; pulpwood, $73,129, against $118,352; shingles, $739,334, against $811,077; ties, $93,477, against $119,948; wood pulp, $171,619, against $186,123.

Referring to these decreases, Mr. Ryder says:—"The decrease in exports of shingles was due to the low price in New England markets, which caused several of the mills to curtail production and some manufacturers to close their mills altogether. Inasmuch as the demand for shingles in the American markets is increasing and prices have improved, the logging of cedar has been increased and there is everp prospect of the market being abundantly supplied this season. One of the largest shingle mills in this district was destroyed by fire in August last, but a new mill has been erected and equipment is being installed that will triple the output of the antiquated machinery in the old mill.

The decline in exports of lumber during the last year was general, shipments to foreign countries showing a greater percentage of loss than those to the United States. Had the shippers in this district been provided with adequate transportation facilities, the exports of lumber to the United States would doubtless have shown an increase over the previous year. Practically all lumber shipments from this district are forwarded by railway and these have been seriously hampered by a shortage of cars. A number of large mill orders were cancelled because shipments could not be made within the contract period, entailing serious loss to the manufacturers.

Pulp-Wood Resources—Trans-Atlantic Mails

The pulp-wood limits at Berimis, on the north shore, almost opposite Rimouski, were successfully worked during the past season. Extensive logging operations were carried on, so that the product will probably be doubled next season. Shipments from this property were formerly made through this consulate, but these now go to Quebec.

A new company, financed with American capital, has purchased the pulp-wood limits at Manicougan River, and extensive preparations are being made to exploit the property. There is a fall not far from the mouth of this river capable of furnishing about 350,000 horse power, and this is to be utilized in connection with manufacturing the product of the forest. A wharf is to be constructed near the entrance of the river so that vessels drawing 10 to 12 feet of water may reach the wharf at high tide.

The price of labor has kept pace with the increased cost of living, The lumber industry is practically the only interest of the district in which the class of labor required was not of a high grade, but some experience is necessary in order to produce successful results. A few years ago there was no difficulty in procuring all the well-seasoned woodchoppers required for the numeruos lumbering camps at wages varying from $12 to $20 a month, with board, but now it is difficult to get the number of men necessary for less than $20 to $35 a month, and these are mostly youths 16 to 19 years of age. A camp cook could be engaged for $20 a month two or three years ago, but a competent man in this line to-day can command $40 to $50. The cost of boarding the men in the lumber camps has doubled in the past few years, but the quality and variety of food has greatly improved.

The Fassett Lumber Company, Limited, Fassett, P.Q., recently made up a record load to be taken down the Ottawa River to Montreal. On August 21st they loaded on the barge "Rowley" for Messrs. Shearer, Brown & Wills, Limited, Montreal, 450,000 feet of 1½-inch basswood, of the finest quality, to be used in making tobacco caddies.

Riordon Paper Co. Extending their Sulphite Plant

Montreal, September 10th.—The Riordon Paper Company, Limited, Montreal, are making large additions to their sulphite mill at Hawkesbury, Ont. At present this mill is the largest in the British Empire, but its capacity is to be still further increased by thirty tons per day. The new equipment will include two twelve-ton digesters, together with drying machines. The expenditure on the additions will run into about half a million dollars. The comapny have extensive holdings of timber licenses along the Rouge River, P.Q., the products of which are utilized in the manufacture of sulphite at Hawkesbury. With the additions to the plant about 100,000 cords of pulp wood will be used annually. The company also manufacture at Merriton, Ont., a considerable quantity of sulphite, using about 25,000 cords of pulp wood per annum for making pulp and paper. The additions at Hawkesbury are under the immediate supervision of Mr. C. B. Thorne, C.E., the company's mill manager, who is a recognized authority on all matters relating to engineering as applied to sulphite. The product of the Hawkesbury mill and their sulphite fibre has a world-wide reputation, particularly among manufacturers of fine papers. Mr. C. E. Deakin, of Montreal, is the contractor for the building. It is expected that the new portion of the mill will be in running order in March of next year.

Another Big Plant for Quebec

The Donnacona Paper Company has acquired a parcel of land and will erect a large plant at the mouth of the Jacques Cartier River, Que. The deeds which have been registered transfer to George M. McKee, of Quebec, all the properties on the Jacques Cartier River owned by Mr. John Foreman, of Montreal.

The property consists of water powers, mill sites, beach lots and other property at the mouth of the Jacques Cartier River and along the St. Lawrence on the line of the Canadian Northern Quebec Railroad; about $20,000 acres of freehold timber land in the united townships of Stoneham and Tewekesbury and 187 square miles of limits on the Jacques Cartier River watershed. The consideration mentioned is $300,000.

Mr. McKee has organized the Donnacona Paper Company, Limited, an Ontario corporation, with a capital of $3,500,000. This corporation will take over the properties just purchased, together with all the property of the Baie St. Paul Lumber Company, Ltd., at Baie St. Paul, consisting of saw mills, pulp wood plant, and 60,000 acres of pulp wood lands.

The Donnacona Paper Company will commence immediately the construction of a large plant at the mouth of the Jacques Cartier River, for the manufacture of news print paper. Mr. McKee has had a corps of engineers on the site for the past two or three months making surveys and preliminary plans for the building of the plants. The development for the immediate present will be a 50-ton paper mill, with water power development, ground wood mills and buildings large enough to increase the plant to 100 tons of paper next year.

The construction of the plant and the operation of the properties will be under the direction of Mr. McKee, who will be the managing director, with offices in the city of Quebec. Mr. McKee was formerly president and general manager of the Hinckley Fibre Company, New York State, and is thoroughly conversant with the pulp and paper business and the operation of timber limits.

New York, Utica and Syracuse capital is largely interested in the enterprise, together with several well known paper manufacturers from the States. Among them is G. H. P. Gould, president of the Gould Paper Company, Lyons Falls, N.Y., and president of St. Regis Paper Company, Watertown, N.Y. The combined output of these two plants is over 200 tons of news print paper per day, and they are two of the most successful plants in the States. All of the stock which was not taken by the officers and directors has been subscribed.

The officers will be: President, G. H. P. Gould; vice-president, Walter N. Kernan, New York, vice-president of the New York State Railways; treasurer, Charles B. Rogers, president First National Bank, Utica, N.Y. Among the directors and others interested are many well known financial men of New York City.

Laurentide Company Had Good Year

For the year ended June 30, the profits of the Laurentide Company, Limited, were $1,009,551, of which $910,846 were derived from mill nets from ground wood, sulphite pulp ,paper and cardboard, and $98,705 from lumber and miscellaneous. Deducting interest and other charges and betterment to plants, $753,572 was left. In addition there was expended during the year on extensions a sum of $118,570, which was charged to capital. From the profits were paid four quarterly dividends on the capital stock, aggregating $540,000, and $20,000 was added to the depreciation reserve, leaving a balance of $193,572.91 to be carried forward. The retiring directors were re-elected with Sir William Van Horne as president, Mr. George Chahoun, Jr., vice-president, and Messrs. R. M. Angus, James Ross, Chas. R. Hosmer, Edwin Hanson and Frederick A. Sabbaton.

To Receive Tenders on River Jean de Terre Limits

Sealed tenders will be received up to December 20 of this year for the purchase of limits 194 and 195, River Jean de Terre, tributary to the Gatineau, each of which comprises 50 acres of valuable pine and pulp wood and land. Notice to this effect has been issued by the Toronto General Trusts Corporation, and Messrs. Aylen and Duclos and Messrs. Belcourt and Ritchie, of Ottawa, and tenders may be sent to any of these firms.

Prosperity Attends Clarke Brothers Plant

After many vicissitudes, success is now attending the pulp making enterprise established at Clarke City, Seven Islands, P.Q., by the Clarke Brothers. This enterprise marks the last industrial outpost on the north shore of the St. Lawrence, east of Quebec. It is run by the North Shore Power, Railway and Navigation Company, of which James Clarke, formerly of Toronto and later a well known United States publisher, is the president. Mr. Clarke made a fortune out of the "Encyclopaedia Britannica," of which he purchased the plates from the English company for printing in America. Twelve years ago he took a sailing and fishing excursion down the St. Lawrence River to Seven Islands, the result being that he took up timber limits and secured the control of a water power at that place.

A fine concrete mill, with concrete dam for the water power, and a large plant of pulp making machinery is now on the site. There are twenty-four grinders with a capacity of 250 tons gross per day; and an average all the year round of 160 tons. There are 980 miles of timber limits. The water power has a head of 54 feet and a development of 10,000 horse power. A second fall, a quarter of a mile up the river, now undeveloped, will give a further 9,000 horse power.

The mills are running at full capacity, with day and night shift. The output is stacked during the winter, and shipped out by boat to Quebec and the Great Lakes during the season of navigation.

Where there was nothing but forest, far from civilization, the company has built a pretty village for the workmen, as well as a hotel. There are sidewalks, electric lights and other appointments of an up-to-date industrial village. The people are prosperous and contented.

Canada's News Print in United States

Canada's share of the United States imports of print paper during the fiscal year ended June 30 last, was 55,563 tons, valued at $2,101,086, as against 53,114 tons, valued at $1,969,102 in 1910-11, and 43,388 tons, valued at $1,615,100, during 1909-10.

The average price of Canadian print paper at the point of shipment during the last three fiscal years was shown from these figures to have been in 1911-12, $37.81; in 1910-11, $37.07, and in 1909-10, $37.22.

The total quantity of print paper imported from all sources into the United States during the fiscal year aggregates 59,789 tons, valued at $2,567,670, compared with 57,206 tons, valued at $2,482,968, during 1911, and 46,455 tons, valued at $1,920,801, in 1910.

Imported print paper, at the point of shipment, brought an average price during the fiscal year 1911-12 of $41.53 per ton, a decline of $3.55 as compared with the previous year, when it was $44.88.

Canada therefore was a very important factor in the print paper importations into the State during the year, as will be seen by the following table:

	1912		1911	
	Tons	Value	Tons	Value
Total imports	59,789	$2,567,670	57,206	$2,482,968
Canada's share	55,563	2,101,086	53,114	1,969,102

The higher average is no doubt due to the importation of a certain quantity of high grade European paper for a special purpose.

Mr. F. D. Monk, Minister of Public Works, recently inspected the channel between Ha Ha Bay and Chicoutimi, P.Q., and also the facilities for shipping pulp and paper at the latter place. The Minister, accompanied by Mr. Sevigny, M.P., and under the guidance of Mr. Dubuc, managing director of the Chicoutimi Pulp Company, visited the mills of the company. It is proposed to construct an additional mill with a production of 500 tons per diem. Price Bros. are building a paper mill at Jonquieres, with a daily output of 120 tons of paper. The minister also visited Ha Ha Bay.

Mr. J. T. Sadler, father of Mr. Walter J. Sadler, of the firm of Sadler & Haworth, Montreal, died recently in Montreal, aged 63.

Lumber and its Interests at C. N. E.

Varied Collection of Exhibits Showing Importance and Prosperity of Lumbering Industry—Some of those who Displayed their Products

The chief point of interest for lumbermen developed by the Canadian National Exhibition at Toronto was the fact, so clearly demonstrated that the past year has been an excellent one for the lumbering industry and its allied lines. The machinery manufacturers report a greater number of sales and promising enquiries than at any former exhibition. In most instances, exhibitors state that orders on hand would keep them busy for some time ahead, and a number of them are unable to keep up with the demand, although their employees are working overtime as much as is reasonable.

In the Government Building an exhibit of much interest was one of British Columbian lumber and timber. This included a magnificent piece of fir 54 in. wide by 1¼ in. The log from which this plank was cut was 10 ft. in diameter. It came from the Vancouver Island limits of the Canadian Western Lumber Company, Limited, Fraser Mills, B.C. The sample was finished by the Crossen Car Company, of Cobourg, Ont. There were also on exhibit logs from the Peace River district of B. C. fir, 72 in. in diameter, spruce 66 in. in diameter, and cedar 55 in.

The Dunlop Tire & Rubber Goods Company, Toronto, were showing their "Sunset" red high pressure steam packing and "Gibraltar" belting, as well as a full line of steam and piston packings. Their stand was in the Manufacturers' Building.

The Gutta Percha & Rubber Manufacturing Company, Toronto, in the Manufacturers' Building, exhibited a large range of shoe packs manufactured specially for the lumber trade. They also showed their makes of packing and fire hose.

The Wm. Hamilton Company, Limited, Peterboro, exhibited the "Samson" turbine in the Machinery Hall. This turbine is adapted to all water power requirements and is specially suited for direct connection to electrical generators.

The Goodyear Tire & Rubber Company, Toronto, located in the Transportation Building, showed their rubber belting. A special feature at their stand was a quantity of "Goodyear" fire hose which forms part of a consignment sold to the Toronto Fire Brigade.

The Schacht Motor Car Company, Toronto, exhibited in the Transportation Building and also in the Transportation Annex. In the former they were showing a 1500 lb. 45/50 h.p. 4-cylinder delivery car, and in the latter a 6-ton truck of 45/50 h.p. dual system, with 5-in. dual tires on rear.

The Brantford Motor Truck Company, Limited, Brantford, exhibited their trucks in the Transportation Building. In addition to some lighter lines, they were showing a 35 h.p. 3000 lb. heavy truck with dual rear wheels and chain drive.

The Commercial Oil Company, Limited, of Hamilton, showed their well-known "Lubriko" brand of oils and greases, in the Transportation Building. They claim that their cup grease has a higher melting point than any other in the world. They were also showing belt dressing and metal polish.

The Crescent Oil Company, Hamilton, exhibited as their chief lines, the "Alligator" steel belt lacing and the "Limestone" wood split pulleys. Their stand was situated in the Machinery Hall.

The Canadian Fairbanks-Morse Company's exhibit in the grounds was of special interest to lumbermen and sawmill owners. They were demonstrating marine engines for towing logs, and stationary and portable engines for saw work.

The Brantford Roofing Company, Brantford, had a building of their own in the grounds in which they were exhibiting their celebrated lines of roofing. Their slate finish roofing in green, red and grey attracted much attention. It is surfaced with crushed slate, has a terra cotta finish and is durable as well as artistic.

Elmira Machinery and Transmission, Limited, Elmira, had their exhibit in the Machinery Hall. Their lines of pulleys, hangers and transmissions made an interesting showing.

The Tallman Brass & Metal Company, Hamilton, had a large and interesting exhibit in the Industrial Building. This company are now making the Tallman carburetor for gasoline engines. The other chief lines which attracted the lumber trade were: Special "Arctic" babbitt for sawmill and lumber machinery, manganese bronze castings, and 3X genuine "Arctic" metal for heavy machinery.

S. F. Bowser & Company, Toronto, had an exhibit in the Industrial Building. They were showing oil tanks for sawmills. These tanks are fireproof and are accepted by the Underwriters' Association of America. They stop the waste of oil, which is found all too frequently in sawmills where no proper tank system is installed.

The Dominion Register Company, Toronto, were demonstrating the McCaskey Account System. Important improvements have been added to this system and they are now equipped with the new interchangeable index and the electric cash recorder. Their exhibit was in the Industrial Building.

The Shurly-Dietrich Company, Galt, Ont., had, as usual, a very large exhibit of their saws and tools in the Industrial Building. Their plan of exhibiting is a very attractive one, the wall space being artistically covered with saws of all descriptions. The Shurly-Dietrich Company claim to be the largest saw manufacturers in the British Empire and their goods are all Canadian made.

The Canada Metal Company, Toronto, exhibited a large line of their products in the Machinery Hall. Their motto is "Everything in Metals." Their exhibit was both comprehensive and attractive.

The Carborundum Company, Niagara Falls, N.Y., exhibited in the Industrial Building. Of special interest are their "Aloxite" goods. These include "Aloxite" saw gummers, and "Aloxite" cloth for machinists. Among the large range they were showing were saw wheels, garnet paper for woodworking, etc.

Cowan & Company, Galt, situated in the Machinery Hall, had an exhibit of great interest to woodworkers. Their specialties were chain saw mortising machines, hollow chisel mortising machines, and power feed rip saws.

D. K. McLaren, Limited, Toronto, showed their lines in the Machinery Hall. One of their new manufactures is the "Diamond" clinching belt hook. Other lines are "Diamond" belt dressing and Philips split steel pulleys, which are specially adapted for high speeds and small pulleys. The firm have just completed a $15,000 contract for belting in the Transcontinental Railway Shops at Transcona, Winnipeg.

Canada Machinery Corporation, Limited, Galt, Ont., had their display in the Machinery Hall. Their mitre saw for furniture factories was specially interesting as was also the "Falls" self-feed attachment for jointer. The "Standard" chain mortiser, the "Standard" glue jointer, and a lathe and shaper were also to be seen at this stand.

The Dodge Manufacturing Company, Toronto, had a specially large showing of pulley castings and transmission machinery in the Machinery Hall.

Beal Bros., Toronto, occupied a large stand in the Manufacturers' Annex, and displayed a full range of lumber and truck harness, oil tanned moccasions, etc.

Molassine Company, Limited, London, Eng., in the Manufacturers' Annex, devoted all their attention to making their Molassine meal known. They have awarded a prize of $25 in gold to the owners of every horse winning a first prize, provided that the horse has been fed on Molassine meal.

The Dominion Belting Company, Limited, Hamilton, whose exhibit was in the Machinery Hall, displayed their Maple Leaf Belting. Some of their special sizes were, 5 ft. 10 ply and 52 inch 20 ply.

Interesting Legal Case Concluded

Judgment was recently given by Hon. Mr. Justice Sutherland in the case of the Hilty Lumber Company vs. the Thessalon Lumber Company and the Traders Bank of Canada. The action was for a declaration that a certain contract for the sale of lumber by defendant company to the plaintiffs, was made on the express representation that certain of the lumber known as the Mississauga cut would run at least 5,000,000 feet of No. 3 and that plaintiffs should be allowed a discount of two per cent. on the purchasing and for damages for breach of the said representation. Hon. Mr. Justice Sutherland found that the agreement contained no reference to either of the above terms and the defendants denied that the terms had been referred to in the making of the contract. Instead of running 5,000,000 feet, the Mississauga cut ran 3,235,000 feet, and for the shortage, plaintiff claimed $7,060 damages. Hon. Mr. Justice Sutherland held that no false representation had been made, nor any prior or contemporaneous oral agreement and that there was no arrangement for the allowance of a discount. Accordingly he dismissed the action with costs.

Extensive Proposition for Ontario Forest Industry

Mr. F. L. Barledt, a British capitalist of German birth, who holds large interests in forestry and wood-manufacturing enterprises in Germany and Russia, was recently in Toronto negotiating with the On-

tario Government to secure a large area of forest land in Northern Ontario. Mr. Barledt has traveled extensively through Ontario and other provinces, familiarizing himself with the timber resources and seeking a location for a system of forest industries. He proposes to manage the area on forestry principles, clearing out the poor timber first and the dead trees, and utilizing every part of the trees from the roots up, in the manufacture of various wood-products. A system of systematic reforestation will be pursued and the standing timber protected from disease and cared for by experts. It is proposed, if a sufficiently large area can be obtained, to bring over trained foresters and experts in the wood-working industries from Europe and give them steady employment all the year with a share in the profits of the enterprise.

Workman's Compensation Law in Ontario

It seems now assured that the Province of Ontario will have a workmen's compensation law submitted at the next session of the Legislature. Sir William Meredith, who has been in Germany and other countries examining the laws and conditions affecting the subject, on behalf of the Ontario Government, made a statement recently to the effect that Ontario was badly in need of a new system, but that different conditions here would make necessary a specially devised arrangement covering employer and employee.

New York Market Situation

Chase, Talbot & Co., New York, report as follows:—Any likely advances for delivered prices of lumber during the balance of the season are not apt to reflect a proportionate benefit to the manufacturer. There is not sufficient vessel tonnage available this Fall to move all of the stock from the east, and consequently a considerable quantity of lumber will be carried through the winter at the various water shipping points.

Owing partially to the splendid crops in the west, there is an excess of demand for rail tonnage, and southern, as well as western lumber shippers already report a car shortage. This is particularly true in the Pennsylvania hemlock section and West Virginia spruce section.

It is reported that there is a general increase in freight movements throughout the country. Buyers are cognizant of this situation and to protect themselves, are purchasing lumber in larger quantities and on an agreement for an extended period of shipment. It can be readily appreciated that this demand for future requirements coupled with that warranted for immediate consumption, places the seller in an enviable position.

As is usually the case at this season, funds in large volume have been transferred to the western section to provide for the movement of the crops and this week Wall Street sent to Western Canada several billion dollars for the same purpose. Interest rates have naturally hardened somewhat, but the lumber trade is in a very sound condition and will not be materially affected.

We quote random spruce 2 x 6, 2 x 8 and 2 x 10, good assortment of widths and lengths $25. 9-in., 10-in. and 12-in. $26 to $27. 2 x 3 and 2 x 4, $21 to $22. Dimension spruce 8 in. and under, admitting of not to exceed 20 per cent. 9-in. and 10-in., $25. Dimension 2 x 4, $23 to $24. Fancy lengths in dimension 10-in. and 12-in., $27.50 to $28.50. Spruce staves 20c. Spruce furring 1 x 2 DIS and B, $22. Eastern white cedar shingles, "Clears" $3.25 to $3.35. "Extras" $3.75 to $3.85. Hemlock 2 x 3 and 2 x 4 random $18 to $19. Dimension 2 x 4, $20 to $21. Other dimension hemlock in larger sizes $20 to $22. Eastern white pine "Box" 7-in. and up, $22 to $23. "Shippers" $25 to $26. Small knotted white pine boards of selected quality $28 to $30.

For spruce laths $3.85 and $3.90 is now being realized, with probabilities of a $4 or better market in the near future.

Good Demand for Canadian Pine

The Timber Trades Journal, of London, Eng., in an editorial article of Aug. 24th said:—"Canadian pine of practically all descriptions is lighter in stock on the other side than ever known at this time of the year, and as everything points to an exceptionally light production, holders should do well. The shortness of stocks applies more particularly to the better qualities, and we hear that it is extremely likely that little, if any, more of the better classes of wood will be available for contracts or for shipment right up to the end of the season. Some agents have been compelled to decline to quote for firsts and seconds owing to the fact that they are closely sold up and that supplies on the other side are short. Although one might judge from the Board of Trade returns that Canadian wood tends to show a falling off in import, we are inclined to think that this applies more to the lower qualities of Canadian pine, for which, no doubt, the cabinet-making and other trades interested are finding substitutes. But for the better qualities there is, in spite of severe competition, an increasing demand, and although pattern-makers and others sometimes try woods which might at first sight appear cheaper, they almost invariably return to Quebec pine, no matter what price they have to pay. Generally, prices are keeping up, the better quality pine and good sidings are increasing in value, and, considering the high freights, the approach of the end of the season, increasing insurance, and the small production, there is little chance of prices falling. Practically all Canadian timber is in the same position, especially rock elm and oak.

"Since our last report the c.i.f. market has for spruce deals stiffened, mainly owing to advanced rates of freight, and we are inclined to think that values will now continue on the upward grade. Parcels per liners have been realizing slightly better values, and, from what we can gather, there will not be a very large quantity of these shipped—at least before the end of the present year. It is stated that the regular liners have practically booked all the space available for spruce during the season, and there was certainly not a large amount of space offered, which rather tends to show that imports will tail off very considerably as soon as the last cargoes have left their ports of loading."

United States Timber Exports

Official statistics of exports of forest products from United States ports during the year ending June 30, 1912, show an increase in value of over $4,000,000. The total value for the year under review amounts to $96,782,186, as compared with $92,225,951 for the preceding year. The increase is due to expansion of trade in boards, deals, planks, joists, and scantling which account for more than half the total export; the figures are 2,340,909,000 ft. for 1912, against 2,060,965,000 ft. for the preceding year. The advantage thus gained not only makes up for the decrease in the export figures for timber but shows a substantial increase on the combined figures. Timber, hewn and sawn, has fallen from 531,634,000 ft. exported in 1910-11 to 438,021,000 ft. for last year. The loss is not attributable to any marked individual reduction, but is spread over all the consuming markets. In lumber the figures for Canada show the large increase of 49,736,000 ft. over the 403,285,000 ft. of the preceding year; South America took the enormous addition of 139,683,000 ft. over 1911; British Oceana 31,937,000 ft.; Netherlands 20,728,000 ft.; United Kingdom 10,104,000 ft. (from 216,433,000 ft. to 226,537,000). On the other hand shipments to China show a falling off of 37,945,000 ft.; Africa a loss of 10,001,000 ft.; Cuba 8,925,000 ft.; Italy 5,818,000 ft.; Belgium 4,466,000 ft.;France 3,758,000 ft.; Germany 2,983,000 ft.

German Importers Find Fault with United States

United States Consul E. P. Secker in a recent report says:—"There is as much dissatisfaction in the Netherlands and Belgium as was found in Germany on the part of firms which are endeavoring to do direct business with United States lumber manufacturers. The latter do not in many instances keep to their contracts as to grades, specifications, or time of delivery. All of this produces not only loss to both sides but is bound to defeat the aims of the American shippers who are endeavoring to build up direct connections in the foreign markets. The trade in Germany, Netherlands, and Belgium places as great stress upon fidelity to contracts as do the American people.

"In this connection one of the many instances which have come to the writer's attention may be cited: A Rotterdam firm placed a direct order for some choice white oak, firsts and seconds, and agreed to and did pay a premium of $5 per thousand over market price. Not only was red oak substituted but the quality, instead of being firsts and seconds, was a poor No. 1 common. The purchaser having taken up the draft covering the shipment has no recourse except to enter suit, since the shipper contends that firsts and seconds white oak of superior quality was shipped. There can be no room for claiming a transposed shipment since the measurement and piece tallied at both ends.

"There are, however, a number of American lumber firms enjoying the confidence of their customers in the markets mentioned and who have no difficulty in holding the trade. They accord the foreign trade the same treatment as they are forced through competion and propinquity to accord their home customers."

While Australia's imports of paper and manufactures of paper from Canada during 1911 showed an increase, some surprise has been occasioned by the fact that there was a considerable decrease in the imports of printing paper. D. H. Ross, trade commissioner at Melbourne, in a recent report states that the consumption of printing paper was never greater in Australia, and hence that the contraction of imports in this line from Canada can only be attributed to two things, viz., accumulated stocks or the competition from Scandinavian and other paper mills.

How to Make Hardwood Business Pay

Proper and Improper Methods of Handling and Equipment Discussed—Reasons for Some of the Frequent Failures and Successes

Written Specially for the Canada Lumberman by H. E. Miles

MANY mill owners have made a failure of the hardwood trade, and others are receiving comparatively small profits, simply because of not employing proper methods in manufacturing, or by reason of inadequate equipment. This is especially true of those handling birch and maple. The writer has noticed this by careful observation when visiting many of the milling plants throughout the provinces. This, together with inferior built machinery, and unqualified operators, is quite enough to produce such results.

It is evident from observation that there is no industry so badly abused as that of lumbering. Just imagine the foreman and manager of our textile and other works having no more technical knowledge than is possessed by the average sawmill owner. I fear that if such were the case, Oriental costumes, and the bark canoe would not seem so untimely.

A lawyer once stated that he could conceive of nothing in connection with a country sawmill which would involve professional help, and such, it is evident is the opinion of many mill owners. While this may be true as relating to the higher branches of education, those who get proper returns for their products, nearly all operating directly on the stock, with machinery, are those who have simply made such work a profession. From the one who handles the setting device on the carriage to the one or more who trim or butt the lumber, technical knowledge, combined with experience, is necessary. Their work becomes a profession and only those who have mastered it should be employed.

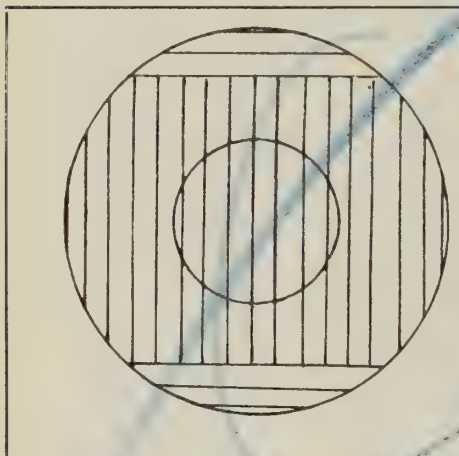


Fig. 1

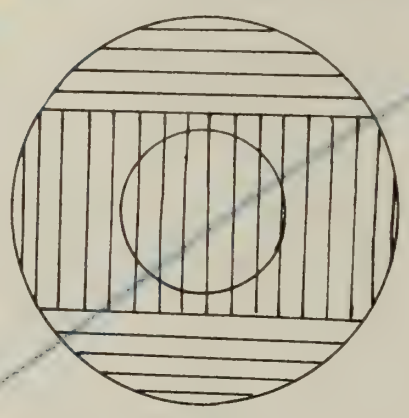


Fig. 2

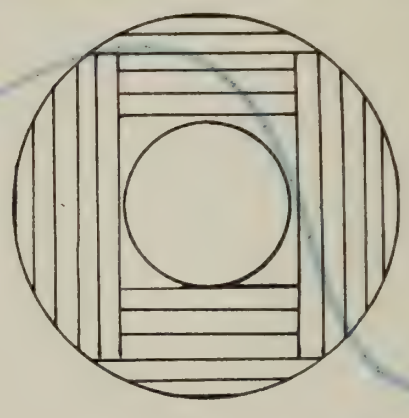


Fig. 3

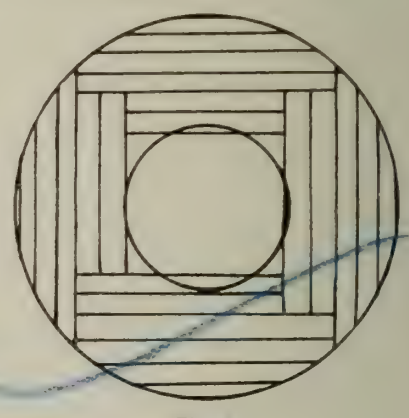


Fig. 4

Enhancing the Value of Stock

The simple fact that what might be a valuable piece of cutting is often rendered worthless, or has to be consigned to a lower grade, bringing an insignificant price in the market, is sufficient to warrant a more careful study of the methods employed in our mills. It has been demonstrated that the value of a stock can often be enhanced thirty per cent. by expert operators, as compared with that produced by the common methods.

It is most important that logs be cut into sizes to which they are best adapted. Hence a knowledge of this work must be possessed by the sawyer. It often happens that a log which is suitable for one market is unfit for another. For instance, some have manufactured birch for both the American and Liverpool trade at the same time, depreciating the product of one in favor of the other, often depreciating both. Others have successfully cut for both markets from the same stock to a great advantage without depreciating either. This may be done by a careful study of the requirements of both, and by cutting the logs into stock to which they are best adapted.

First, however, let us consider the hardwood business from the point of view of the standing timber. It is noticeable that those complaining about the hardwood industry, as a rule, are not careful enough in selecting their logs. Fuel is not lumber, and while great care should be exercised in cutting all that constitutes lumber, some will stock their mills with logs, many of which are only suitable for fuel; logs which contain no lumber whatever. We too often see hardwood logs hauled to the mill, from which the most experienced expert operators would be unable to extract a sufficient quantity of clear cutting to make the product suitable for any market. Or if marketed it would not pay for handling.

The next loss comes from not having logs which are suitable for lumber, properly cut. A slight crook in a log is sufficient to reduce greatly the amount of lumber, which should be sawn from it. Great care should be exercised by those who are preparing the logs. After a tree has been felled it should be surveyed by the marker to determine at what points it should be sawn into logs. While it is a well-known fact that twelve feet is the most desirable length for most eastern hardwoods, it is also a fact that much shorter and longer lengths are suitable for the trade. However, those who have attempted to render the most uniform lengths, by cutting the logs all the same length, have been surprised to find the product of the mill to contain a larger per cent. of shorts than those who have followed an entirely different method. When it is discovered that a tree contains one or more crooks the marker should mark it to be sawn directly in the crook or crooks, as the case may be, after which he should figure to divide the remainder of the tree into the most numbber of uniform lengths possible, By a bit of care it may be marked so economically that no waste of timber need occur. It seldom happens that the most crooked trees will necessitate the taking of more than two odd lengths, and often it involves but one, if a careful survey is made. However, it sometimes happens that odd lengths are involved to utilize all the good lumber contained in a single tree and render the logs straight. Such lengths, however, are not, as we have seen, objectionable to the trade, and where there is one foot or more left to remain on the tops of trees, below the limbs, (as is often seen when passing through forests which have been lumbered) the only conclusion possible is that the cutting has been extravagantly done.

The Question of Lengths

The trade accepts nearly all hardwood cut in lengths ranging from four to sixteen feet. While it is not good economy, as a general rule, to cut hardwood logs over twelve feet as a standard, since a longer length would involve waste by virtue of crook, if proper care is exercised the entire length of that portion of a tree which is free from other defects may be utilized by cutting an occasional short or longer length. It often happens that where all the logs are cut a uniform length, many of them contain crooks within one to three feet of the end, which, when sawn can hardly produce a board their full length. Those few feet might better have been allowed to remain on the other log. In such an event these odd feet would be saved. Such a log would produce no shorter lumber than otherwise, and the other would produce longer lumber which is worth quite as much as the standard lengths. Such manoeuvreing not only produces a larger and better quality of lumber, but increases the cut of the mill. Nothing pleases a sawyer more than straight logs, as they enable him to avoid many extra motions in manufacturing.

It will be readily seen that where uniform lengths of logs are maintained, such logs are bound to be more or less crooked and to produce more short lumber of every conceivable length, below standard, than where the stock is cut as above described. A crook in the middle of a twelve-foot log involves many five and six-foot lengths,

or if placed on the carriage to be sawn the other way, will produce only a few more narrow boards composed mainly of heart stock.

The above are two main causes for failure in the hardwood trade, but they are by no means all.

The heart of every tree contains knots and many other defects which render it, as a rule, wholly unfit for the trade; and unless the stock be manufactured in such a way as to exclude that part of the log, much good timber goes into culls. In viewing the requirements of the trade, we find that the most obvious is that the stock be rendered as wide and clear as possible. Hence a careful study should be made to attain that end. Such facts, although simple in themselves, can only be appreciated by the operators being properly instructed, and adhering to certain methods. This, however, is often not the case. The log is frequently promiscuously loaded and sawn through and through, giving little attention to the results obtained, and if the lumber produced contains defects it is alleged that the stock was poor.

A most forcible illustration of good manoeuvreing was recently shown by an expert operation in the Province of New Brunswick. Despite the existing prejudice in the markets agains hardwood lumber from that province, some of the finest stock was produced from what was regarded, by some of those who had failed in the business, as being very ordinary logs.

The following cuts show some of both the proper and improper methods of plain sawing for inch lumber. It will be observed that the first cut shows the most common way of siding down, and then slashing the logs into boards by cutting right through the heart, rendering most of the lumber culls.

The second is where it has been discovered that the heart is of no value, hence the sawyer has continued to saw closer to the heart before turning the log. Thus, while avoiding the heart, he has been cutting stock which should have been rendered in two or more different grades all in one. This point he has failed to observe and has also failed to reckon the loss incurred by the taper of the log. However, his lumber looks better than before and he most frequently settles down to such a method and soon becomes unteachable.

The third cut illustrates a case in which the sawyer has considered a few more details. This is a practical method for the ordinary run of logs, but in the case of logs of sufficient size to produce several grades, the fourth cut will illustrate better the proper method of handling. The two last methods should be used according to the size, the per cent. of heart which appears at the end, and the general appearance of the log. A sawyer can soon school himself to that extent that his eyes, to a great measure, will acquire the character of an X-ray machine.

After the slab is removed, side boards should be taken according to the taper of the log. Here is where much value is often sacrificed. If more sideboards are taken than is co-ordinate to the amount of taper of the log, this infringes on timber rightfully belonging to the sideboards of the adjacent sides yet untouched, and it is wasted in edgings if edged full length of the piece of cutting. Or, if it is allowed to escape the edger it involves a waste at the trimmers by such boards having to be cut short to render them free from wane. While if too few are taken, according to the taper of the log, the same results will be experienced as soon as those on the adjacent sides are sawn. Hence much care should be exercised in this matter.

As soon as the two opposite sides are dealt with, the log should be turned down and as many boards taken as may be comparitively free from defects and no more. If the log is such as will evidently produce a good percent of good lumber no boards should be taken on the first three sides after a defect is discovered. Then a second but high grade of lumber may be secured by cutting closer to the heart from each side successively, according to figure four. If, however, the log is not of sufficient size to warrant making the three extra turns necessary, it should be sawn according to the method illustrated in figure three. Let the inner circles in the cuts represent the heart which is usually worthless except for fuel, and never of much value for lumber. It will also be remembered that adjacent to the heart are to be found minor defects which must also be avoided in the higher grades. Hence the force of each of the illustrations will be easily comprehended.

How Often Should a Log be Turned?

To secure proper results no log should be turned less than five times in plain sawing, and should it be of large dimensions, having a comparatively small heart, it should be sawn according to the illustration in figure four, being turned eight times.

It sometimes happens that large logs contain small hearts and are very free from other defects. These are ideal for the American deal trade, and the only ones which should ever be selected for it. It is impossible to cut thick stock free from heart and other defects where it does not exist, but this has too often been attempted. The apparent high prices offered have induced many inexperienced operators to attempt to saw such from ordinary logs, which, of course, ended in utter failure. Such product when placed under inspection is entirely rejected or only a small part accepted.

While we have considered the proper methods in connection with one-inch boards only, the foregoing principles are applicable to every specification. The general principles are the same. It only requires a slight change in tactics to enable one to produce any other specification which may be required and which the logs will make. Much of the fancy woods should be quarter sawn, but since most of them are being handled by men who are better versed in the work it will not be necessary to present that matter here.

Although the price may be sufficient to warrant one in sawing thick lumber, it is always well to cut a portion of the logs into one-inch boards. There are many logs which would produce high grade one-inch lumber, if properly sawn, but would be wholly unfit for deal or planks. While this is true of oak and other woods, it is especially true of birch. Take for instance a log which shows signs of shake. It is utterly unfit for thick lumber for it is sure to season crack; but when sawn into one-inch boards, by turning the logs as above described, such logs will often produce as good inch lumber as any.

This may suggest an inferior quality of that specification. Not necessarily. The thinner the lumber the more defects can be avoided. Hence many logs which produce little or no lumber but culls when cut into thick dimensions, would, if properly handled, produce a large amount of high grade one-inch lumber, Such boards may be associated with the inch sidings produced when sawing thicker dimensions, and be placed on the market as regular goods, which will be in every way equal in quality to that offered by any competitor, unless he is offering a large per cent. of red birch.

By such methods ordinarily timbered lands will produce much valuable lumber, and the per cent. of the lower grades will be greatly reduced.

Transportation charges are as high for poor lumber as for good, hence it follows that a great saving is made by shipping perhaps a smaller quantity, but better quality, which also gains a reputation in the markets and assures a ready sale for everything offered.

If the foregoing methods are studied, and carefully followed, but few stocks taken from lands lying in any of the provinces will produce less than thirty per cent. of the grade known as firsts and seconds, according to the "National" rules of inspection. In fact, what have been regarded as very ordinary cuts of timber have produced from 40 to 47 per cent. of this grade in one-inch lumber. The writer, although having the logs cut as above described, has never had an output which contained nearly as many shorts as the rules of inspection would admit.

In sawing thin dimension lumber there should never be more than twenty per cent. of No. 2 common grade. If there is, it is proof that the stock, if composed of purely lumber logs, has been improperly handled. A good cut should not produce more than twelve or fifteen per cent. of that grade. In view of such facts and the prevailing prices, why should not birch be a profitable timber to handle?

Quality of Machinery

It is of the utmost importance that only high grade machinery should be used in a sawmill for cutting hardwood. It has been alleged that the cost of manufacturing eastern hardwoods was too great, owing to its being too hard for rapid sawing. This is a mistake. If the saws are made to special order for the purpose by those skilled in the art, and the other machinery is of good quality, and properly installed, rock maple and birch may be perfectly sawn on faster feed than is usually employed in many mills cutting pine. One of the most detrimental features of hardwood milling is that the first cost of the plant is often too little. Because good machinery is expensive cheap houses too often get the order. But machinery thus obtained is bound to cost very high in the end. The coarse, imperfect work turned out by some manufacturers of sawmill machinery, and accepted by the majority of mill owners, is alone a sufficient reason for many failures. One man who had thus failed informed the writer that had he at the time known what he had since learned, while being connected with those who only bought the best, he might still have been in business. Light, inferior machinery cannot produce good lumber. Neither can good machinery, poorly installed, produce good lumber. It must be good machinery, well installed, and well operated. Such only is in keeping with the progress of the age, being able to meet the requirements of the scientific operator.

This is an age when every attempt at manufacturing must be according to scientific principles, but technical knowledge is much lacking on the part of many of our mill owners, millwrights, sawyers, filers, etc. This is shown by a comparison again with our textile and other works. The ordinary factory girl is able to earn a living and often saves money on sums paid for piece work, which would seem to the inexperienced person insufficient to pay for a fraction of her daily food. However, she is able to turn out perfectly manufactured goods in quantities which are appalling. These are the results of

scientific research on the part of not only the owner of the plant, but of the foreman who instructs such help to make just certain motions in just such a way, and at just the right time. Why should we not insist on those operating our sawmills applying themselves to secure the knowledge and experience necessary to do efficient work? The only reason I know of is that too often we lack that knowledge and experience ourselves. Many of us cannot impart it.

Better Inspection Needed

Some years ago the writer believed that hardwood was the oncoming trade. It has now arrived, and while we note much improvement each year, are we fully prepared for it? How many of our inspectors are qualified to make shipments? How many of them can correctly quote from any of the accepted written rules and make a practical application of the same? How many of them are prepared to defend their grading by being able to tell why, according to the rules on which it is sold, or should have been sold? Not many, I fear. And here is another cause for failure. Much of the lumber shipped from the smaller mills is sold without any specific rule for its inspection being mentioned. Hence all kinds of trouble arise in the market. Some sharp dealers often take advantage of the shipper who is as helpless as an infant, although as a rule the market is imposed upon by the shipper who lacks that technical knowledge and good judgment which he ought to possess. This lack is not confined to the small shipper. It is also present with those doing extensive business, even members of boards of trade. The writer has met such who have complained that they have had many shipments turned down and are constantly compromising to effect settlements. Someone is in wrong, and when one begins to compromise, compromise he must.

A far better way is to secure copies of printed rules, where such are in use, for the several markets to which one intends to ship, and always specify the rules of inspection when quoting prices. Then you have a guide to go by. Insist that your culler make a careful study of such rules, being able to repeat them fluently, and if he is worthy of his position, he can make a practical application of them. This is not exacting. He charges you a salary, or wage, which warrants just that. A little catechising will do him good. He should be able to do this, but I fear many cullers would be embarrassed if placed under examination for their profession. Too many of them have simply aped others learning a few general ideas and think they are competent.

When making re-inspections, we frequently find that the argument of too many inspectors employed in some of the largest Canadian as well as the American cities is, that they have inspected lumber for many years, usually in some particular yard, hence; "I guess I know my business." They can easily maintain such a bluff against some shippers, but to those who can tell why, it cuts but little figure. A well qualified shipper soon gets such a reputation in the market that his product is accepted without question or comment. His honest customers soon tire of inspecting and measuring after him, and the dishonest ones soon find it is of no avail.

I invite my fellow lumbermen to join in trying to know more about this hardwood industry which I believe can be made profitable.

A Treatise on Moulding Knife Design

Written specially for the Canada Lumberman by N. J. Millette

We find to-day that science is making great developments in all branches of the industrial world. Every motion is depicted, timed and figured under special classification and carried out through the various processes in simple units, so that they can be understood and mastered by mechanics who have a moderate knowledge of mathematics.

Most intricate combinations are rendered simple and practical by means of a tool, a chart, an instrument or a test gauge, so that clear and simple readings can be made by the working man, thus reducing the worry and increasing the efficiency of the industrial world.

Calculations are simplified by the use of a "slide rule." The difficult problems of making suitable allowance for shrinkage on a pattern for different metals, are solved to a nicety by the use of a "shrink rule," &c. An indefinite number of other mathematical problems are solved without the least effort of brains and become simple labor.

In many operations of the wood working line, we rest on the oars and stick to the old methods of "guess work." We know it is not right, but we believe that it is not worth while to change for a better way, as if the wood working business was going to stop in the early future.

It is never too late to get busy and attempt to master difficult problems, especially those where "guess work" has been used, and eliminate from our ways of doing things, all methods that are not practical and known to be mechanically correct.

My intention in writing this treatise is to give those interested a method of constructing a special scale which may be used to measure dimensions of mouldings on the cutter line, or, in other words, to furnish a scale that will read on the knife measures, what a rule will read on the finished mouldings, and to explain the way to make use of this scale in setting moulders with combination cutters or in designing cutters for special shape mouldings.

We find that heads not carrying cutters at the same angle require a different shape cutter to produce a duplicate moulding. Although a slight variation in the angle may not make enough difference to be very perceptible, the difference exists, and it is advisable to have a scale made to use with each machine, unless the shapes of heads are found identical.

Fig. 1

Fig. 1 shows the lay-out of a sticker head, and the method of designing the scale. To construct this figure, make the outlines of the head, by tracing around the end, or designing from dimensions, laying it out in such a way that one corner of the head will be perpendicular to the center of the shaft. From these points draw a

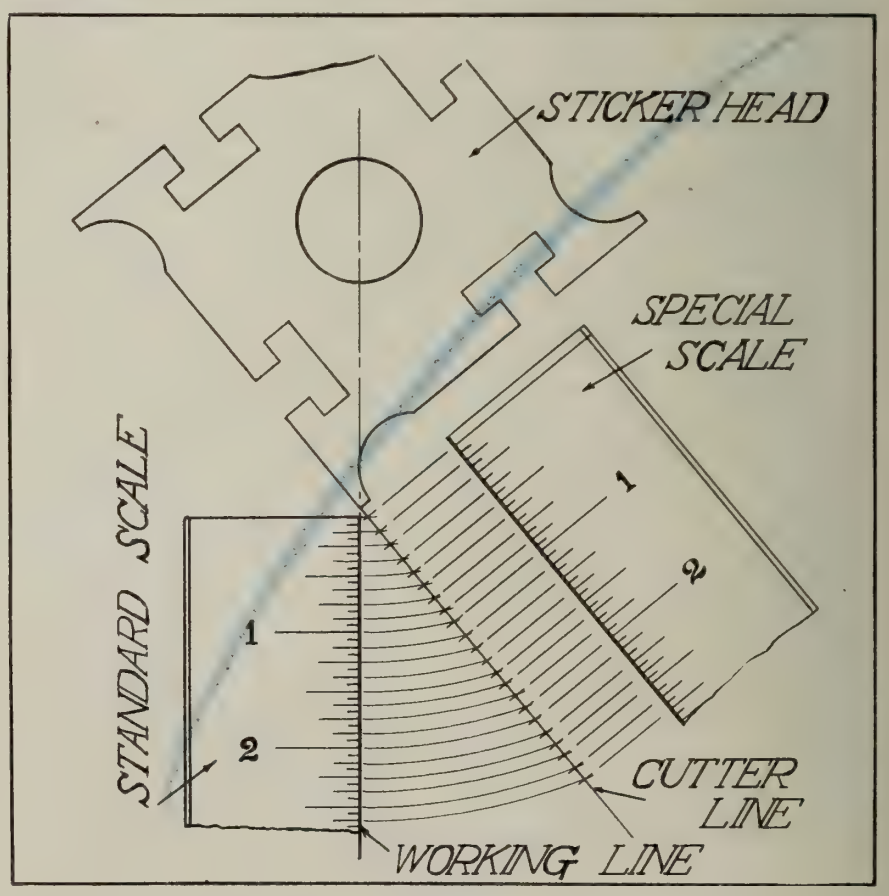


Fig. 1

vertical line which will represent the working line of the moulding feeding horizontally.

Along the working line, at the left side, is designed the standard scale or graduations of the rule. (English measure). At the distance allowed as clearance over the corner of the head, as represented in the figure. This clearance may be altered to suit the projection adapted by the operator.

Then following the surface of the head, where the cutters are bolted, draw a straight line long enough to clear the length of the scale desired. This line is termed "cutter line." Now, all the graduations of the "standard scale" are transferred to the cutter line by using the center point of the shaft for a center, using a compass.

We find that these divisions as they increase in distance from the

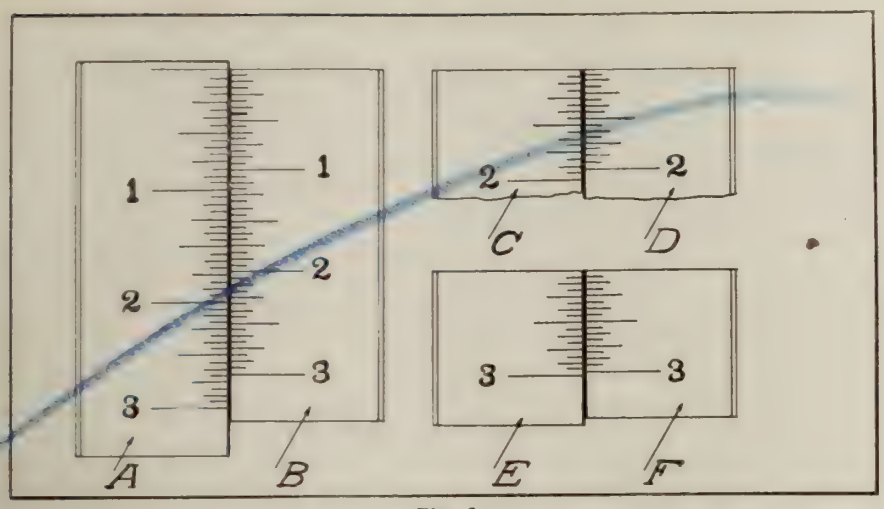


Fig. 2

center, gradually decrease in length on the cutter line. From this point, we have an illustration of the extended shape of the cutters over the shape of the moulding.

The "special scale is designed parallel to the cutter line using the intersection points as stated. Using this same principal with different shaped heads we find that the graduations on the special scale will vary in size, showing that a scale made for a certain shaped head could not be used to advantage for another.

Fig. 2

Fig. 2 illustrates a comparison of the scale made as above stated.

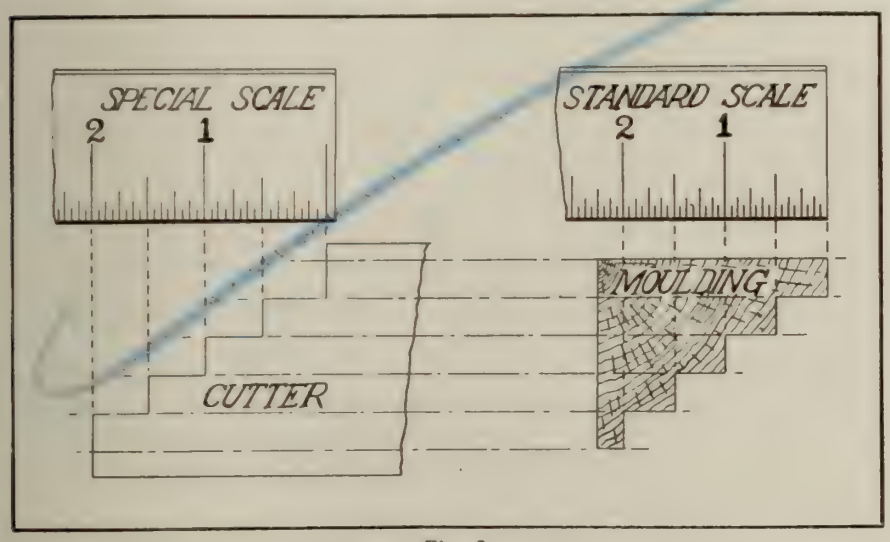


Fig. 3

"A" represents the special scale; "B" the standard. Note the difference between the two scales and particularly in the first inch of the length. "C," in the second inch of the scale "A," placed opposite the second inch of standard scale, shows less variation and difference. We find by referring to "E" and "F" that very small difference exists between the two scales at that projection, and it decreases as they extend from the centre.

Fig. 3

Fig. 3 shows how straight work can be laid out, using the scale,

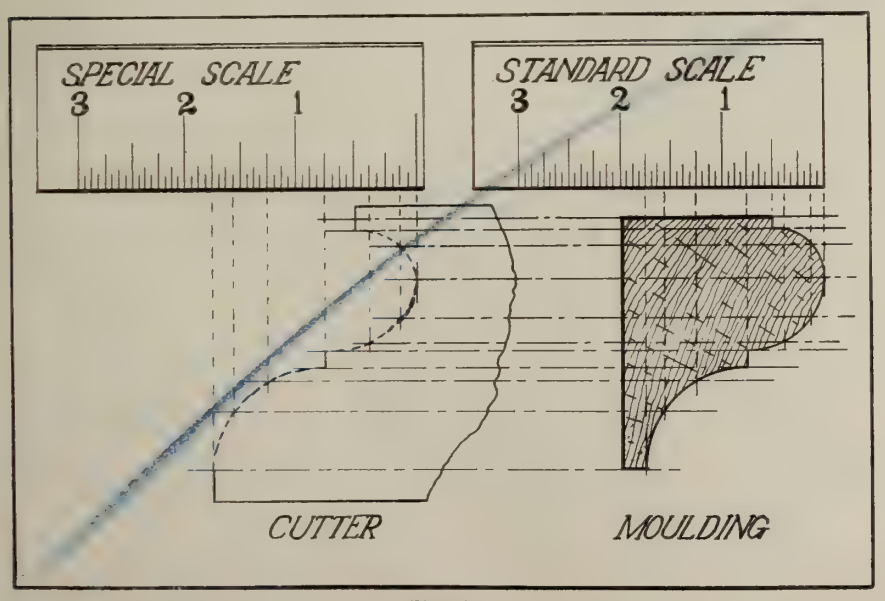


Fig. 4

if we desire to make a piece of straight work, in steps of one half inch in succession divided as represented by "moulding." Lines drawn from the standard scale at desired size and squared-off on both ways will determine the shape of the stock.

To get the shape of the cutter, we proceed as follows: As the proportions across the cutter are equal to the reverse shape of the moulding, parallel straight lines are extended to the cutter shape, allowing extra width on sides for clearing edges. To determine the length of cutter, the special scale is used in the same way as the standard scale is for the moulding. The same construction can be made direct on the head by using sectional cutters measured in place with the special scale.

Fig. 4

In making a moulded form, we proceed in the same way as for straight work, carrying every straight point and making as many intersections along the curves to get the proper shape, as illustrated in Fig. 4. Moulded combinations are measured direct on the head the same way as if straight work and with a little practice, a person in short time will be able to set any shape of moulding by placing his cutters to the size required, setting accurately at the first shot, saving considerable time and material.

A Shot at the Draughtsman

During an experience of nearly forty years in many woodworking shops the writer necessarily has come in contact with lots of drawings for woodwork construction and, naturally, I find the methods of expressing various needs upon such drawings are as many as the draughtsmen who made the pictures in question. Some things the draughtsman might do which would greatly assist the shop man in executing the work, and some things the draughtsman might do to the sure pleasing of many more shop workers!

To begin with: Don't try to make a pretty picture—try to show the work the plainest way for the worker. The shop man doesn't care a continental if the section lines are all spaced like lines on a banknote, or whether they are put in with the stub of a match dipped in the ink bottle. In fact, the latter way does give section lines which are easier for the worker to read, than the best section lines laid off by a mechanical spacer. The irregular hand-sectioning appeals more to the worker, in showing broken off interior sections, than does the exact machine ruled lines.

Do not imagine that I want slouchy, carelessly made drawings; for the neater, more carefully the draughtsman executes his work, the better it goes through the shop. But I do wish to protest against the making of shop drawings as though they were to be hung in the Paris Salon instead of worked to by a mechanic in a busy machine-room.

In fact, the draughtsman when making drawings from which work is to be done should be able to put himself in the place of the actual worker for the time being. Then, and only then, will the draughtsman be able to appreciate the kind of drawing which enables the worker to obtain best work most quickly. But, in order to be able to do this, the draughtsman must have had actual experience in the shop, at the several machines and at the bench.

Here is where the young technical man falls down and makes the drawings which cause shop men to wish they had never been born—until after that draughtsman died! The technical man, who has no idea of work in the shop, can not make as good drawings to work from as he could with a year's actual experience in the shop. And I earnestly advise each and every man who is taking or intends taking a technical course to take a year in the shop first.

If you don't know what line you intend to take up, and are just going to "Tech" for a general education, then, just as soon as you decide what line you will follow, right then and there, break away from school, go to work in overalls and jacket for one year, and your technical work will be ten times of as much value to you as though you had crammed first and then spent three years at sifting out the little acquired knowledge that is of use to you, and unlearning the rest!

Just a few hints of some of the things this leads to: The technical student with shop experience "knows what he doesn't know!" That is, he knows what things will be of value to him in his chosen work and he can specialize in these, passing over the other things as lightly as possible. But when a young man knows nothing of shop work or requirements he "must believe everything they tell him"—to quote a certain person, and cannot select the useful and reject the useless things placed before him.

In making details, the man with shop experience places dimension figures where they will prove the handiest—where they are at hand just when the worker gets to need those dimensions. But the man who is not "shop-broken" will place dimensions in such out of the way places that a map and card seems necessary to find the figures. When one is wanted it may be necessary to hunt the whole drawing over and finally drag the required dimension out of some

corner into which it had been hidden by some mental acrobatics known only to the tech-bred draughtsman.

Some young draughtsmen—and some old ones, too, I am sorry to say—work by the rule that no dimension, under any consideration whatever, shall appear across the face of any drawing. Dimensions, their lines and witness marks, must all be located at the sides or ends of the several views, no matter whether it is convenient to find a certain dimension in a special part of the detail or otherwise.

The writer, in his work, places dimensions, in all cases, where they will be found most convenient, no matter whether they fall across the face of a drawing, or at the tail end of 6-inch work lines.

Another point is the "projection" of a drawing. Some men become so imbued with "third angle" or "first angle" that they will use no other projection angle, no matter how inconvenient that angle may prove in certain situations.,

The generally accepted form of projection is the third angle. The shop workers frequently call them " pick" (third angle) projection, and "roll" (first angle). The "roll" is where an object is simply laid upon the board, marked around, then rolled over upon another side or end, and marked around in that position. This straight "first angle" projection and the side which was on top, before the roll, is the farthest from its plan view after the "roll" has been made.

In the "pick" form, after a side has been "marked around" so to speak, it is picked up—hence the name "pick," carried to one side, turned over and laid down again with what before was the top side. So much for the often discussed difference between first angle (roll) and third angle (pick) projection. But the point I wish to drive home, even if, Mr. Woodworker, it has to be placed in your chair, is that either or both forms of projection should be used when the most convenient or when either will show the work the best.

The writer often uses both forms of projection in the drawing of a single piece. I use third angle projection whenever it is convenient to do so, but, with one elevation of an object made at third angle, I may make the other elevation first angle. Whenever this is done I always tag such projection with a line reading: "First angle (roll) projection." This enables anybody to determine, without studying the matter out, whether or not the several views are first or third angle projections. This simple method is found to help things a whole lot, in actual practice, where hundreds of drawings are being continually made and used. As a last word. I wish to advise that in all cases, where dimensions depart from scale, the figures be underscored so a man will know whether he can trust the drawing as well as the figures. This is a very fine habit to get into.

—Peter Hanscom, in Wood-Craft.

Notes on Using a Band Saw

While the use of hammers is indispensable in the proper levelling and tensioning of band saws, the use of the stretcher for the work for which it is adapted is very superior to hammer work, says the Timber Trades Journal. With a good stretcher and rolls properly shaped every particle of steel affected is stretched uniformly. The roll leaves no marks upon the blade as does the hammer, which may ultimately result in crystallised spots that crack and break, require a braze, and rapidly destroy the life of the saw. Saws tensioned with the hammer are often spotted with places that have never been stretched, even after the saw has run for months; hence a portion of the steel must be stretched more than necessary, because of the portions not stretched at all. This condition is unlikely to exist if a stretcher is used. The stetcher is a great time saver, as an expert filer can put up a saw in from one-fourth to one-half the time required in hammer work. You can roll any section in a saw from one inch to the entire length. Commonly the filer takes a short place as a section —two or three feet long—and rolls that where required. By using the stretcher the final work of levelling is reduced to a minimum. There is little use for the hammer unless the saw is kinked or twisted.

But a twist cannot be taken out with the rolls or put in with the rolls if they are in proper shape. The argument in favor of a stretcher instead of hammer for tensioning is all on the side of a good machine, but all on the side of the hammer if a poor machine.

Millmen should not buy a poor, cheap stretcher, when for a slightly added cost they can obtain a machine warranted of the highest superiority.

The time that some filers spend in hammering their saws might be better spent in working up the points of the teeth into a better condition for cutting.

Before using the hammer you must know where and how to use it. Then every blow struck counts and serves a purpose. It is not necessarily a mark of industry in a filer that he is continually hammering or fussing with his saws, as too much hammering takes the life out of them. Never make indentations with the hammer which bruise or crush the steel. It causes crystallisation and destroys tensibility. Also avoid unnecessary blows. Have a reason for every stroke of the hammer, and try to place it in the right spot every time.

The roller is far superior to hammer work for the uses to which the roll is properly suited, and there are many filers who through careful watching of their saws and proper use of roll rarely have occasion to use a hammer. Some filers say they have no use for a roll, preferring hammer work. This may be so in some individual cases, but the cause of such condition can be traced either to the fact that the filer is not familiar with a roll or has used one sometime that was not properly made and ground, and consequently gave results the reverse of beneficial. However, this is no disparagement of the principle, but simply of the individual defective machine. After having completed the rolling you should carefully examine saw on levelling board, and give a finishing touch with hammer to any spots that do not show uniformity of tension.

The use of the rolls in tensioning is less likely to dish the saw than the use of the doghead hammer, if the rolls are of even diameter, track, and travel together, and the saw runs straight through the rolls. If one roll is sharper than the other, or if the saw is bent as it passes through the rolls, the saw will be apt to dish away from the flattest or broadest faced roll, and a very little dishing becomes objectionable. Too much tension in the saw will also cause the roll to dish the saw. In machines with the upper roll an idler, or if the saw is gummed or greasy, the upper roll may stop or slip, which will dish the saw. Hence, for large heavy gauge saws that require immense power to tension them properly a machine with geared rolls is unquestionably the best.

Using all the Oilstone

For many years, the woodworker has rubbed along with an oilstone an inch or an inch and a half wide—often narrower than the tools to be sharpened—while the length of the stone was much more than ever was used, says a writer in Wood-Craft.

As a consequence, the corners were worn off the middle of the narrow stone, the middle of which was also worn hollow, while the ends, never being used at all, remained their full height, untouched and unused. As a consequence, the oilstone was nearly always in bad condition and made the sharpening of fine tools a hard task and often a real hardship.

Truing the oilstone was an operation so frequently necessary, and such a hard and tedious job, that it was nearly always neglected, and the workman got along somehow with an oilstone in outrageous condition. When the stone was trued up, about the only way of doing it was to rub the stone back and forth over a board on which sand had been sprinkled!

But all this drudgery is changed nowadays. To true up a large oilstone it is only necessary to hold it against the side of a big emery-wheel for a few minutes and the job is done. If the emery-wheel is too small, the disk sander will do the trick. At the expense of a sand disk, to be sure, for the sandpaper will be worthless after a stone has been trued and the paper must be replaced.

So great an improvement—no, so many improvements—have been made in oilstones that the old-time wood craftsman would feel bewildered were he given modern oilstones to work with. It is no longer necessary to pick over a bushel of stones to find one the right degree of hardness, and "Berea, Ohio" stones, while as good as can be found, are not the only oilstones by a good deal—as they used to be.

The woodcrafter can now make a selection from a dozen qualities of stones, each of a different degree of hardness, with the "grit" in each quality so exactly known that each stone of that brand is exactly like all the others of that quality. Furthermore, the two sides of the stone are made with a different "grit," so the workman can use either a fast-cutting or a finishing surface at will by turning the stone upside down!

But the greatest advance in oilstones has been in the abandonment of the long, narrow shape and the making of circular, flat shapes. A rotary movement is sometimes given by the skilled workman to a tool while bringing the edges to the condition of greatest keenness. This can be given best by the rotary motion on a long narrow stone but which can be practised to perfection upon a circular stone.

Once the woodcrafter has used the circular oilstone, he will never desire to go back to the old-fashioned shape again, not unless he is hopelessly in a rut and will consider no tools that his grandfather didn't teach him the use of!

There is another kink in the oilstone matter which is worth a good deal to every shop, and that is, the power or revolving oilstones which are allowed to run continually, turning in a bath of oil, and ready at all times for instant use, the same as the emery-wheels, beside which the oilstones are usually mounted. A touch of the tool against the revolving oilstone does in a half-second what it would require at least a minute's use of much "elbowgrease" at the bench and does it better as well as quicker.

There is one point, regarding the use of rotary oilstones, which might be improved in some shops, and the same is true of emery grinders, viz.: Put in more of them and instead of placing them in some out-of-the-way position, put them right in front, in the best

light the shop affords, and right among the men who have to use them most. Put in two or three grinders and oilstones where now you have one of the former, and perhaps none of the latter, and the outlay will prove one of the best investments ever made.

As for the truing of the revolving oilstone, that job is quickly and easily done in the same manner that emery-wheels are trued, and with the same tool. Do not let the stones run while the least untrue. Make it the business of some particular workman to keep all the emery grinders and revolving oilstones trued up, the baths and water tanks filled with clean oil or water, and the quality and quantity of the work done by the well-kept stones will pay big interest on the small amount of time necessary to keep these tools in perfect condition.

The Patching of Belts

I have often seen a heavy belt patched with a piece of lighter belt. When the belt is running at a low speed there is little or no trouble, but when the belt is a fast one there is trouble aplenty, says M. Smith, in Wood-Craft.

One of our machines has a finishing head that runs fast on the main cylinder and is driven from the end of that. The belt has a travel of over 6,000 feet a minute, consequently is a hard belt to keep up, needing frequent renewals.

On the occasion of a recent break my helper put a short piece of single 3-inch belt in the double belt for a patch. It did not take long for the belt to enter an emphatic protest against being made to work with unsuitable company.

It was a good object lesson, and I feel safe to say it will not be tried again with that belt.

Mechanics and Wrong Machine Methods

Poor little circular saw! It is not enough that ordinary farm-hand ignorance subjects it to all sorts of abuse and neglect in the fitting but now comes a correspondent suggesting the fitting to be done in a manner contrary to all best-known methods.

He advises square gullets in which to start cracks, cross-cut teeth for a rip-saw, then lays all the blame on the saw arbor. Verily, the ways of mechanics are many and some of them past understanding.

Next to him on this roll of false prophets is a man who seriously advises some inquiring fellow man to put powdered resin on his belts to take out the grease. This is a machine-shop man advising this method. Unfortunate shop owner for whom this man is working! Ordinary machine-shop ignorance of belting is not wearing out the belts fast enough, so it is advised to eat them up with resin.

He says if you use resin there will be no more trouble. That is true. He should add, there will be no more belt after not many days.

—J. Wallace, in Wood-Craft.

Placing the Piping of Blower

If any find it more convenient or economical to put their blower piping under the floor than it would be to put it overhead, don't let the idea run away with you that everything around the shop will drop down in the floor sweeps and that wrenches and other heavy articles will go through the fan, with a possible wreck, says M. Wright, in Wood-Craft. That is so easily prevented that it is surprising that the argument has any weight.

To prevent any possible danger from that source, invert the opening in the suction pipe next to the fan, making it about a foot deep, and leave a small opening in the bottom, just enough to cause a current of air upward. Knots, sticks, nuts, bolts and the possible wrench will drop in this recess from their own gravity and nothing can go through the fan that would injure it.

It will not do to condemn a good system for an imaginary danger.

The Tool Room

In these days all up-to-date mills recognize the value of a fully equipped tool room placed in the hands of a really competent man, who is made answerable for the proper equipment and perfect working condition of all cutting tools; and there is no doubt when this plan is properly carried out, the result is a larger output of better quality with a considerable saving in power and time. It cannot be too frequently urged that the tool room is really the most important department in a mill, and any reasonable outlay in this connection is soon amply repaid. In addition to a full equipment of tools for repairs, it will be found to effect a considerable saving in time and pay well in the end to provide each machine with a duplicate set of saws, cutters or chisels, as the case may be. In this case each machine should be numbered and have a peg rack or small cupboard to itself in the tool room, and as the saw becomes dull all the operator has to do is to take it to the tool room for resharpening, and obtain a fresh saw from his peg, thus practically saving a large amount of stoppages of the machines.—Timber Trades Journal, London, Eng.

Rolling Boards for Cloth

United States Consul A. L. Ingram, Bradford, Eng., in a recent report says:—"Cloth rolling boards are extensively used in the Bradford district, probably more so than heretofore, owing to the greater variety of fabrics and to the fact that shorter lengths or half-pieces are more in demand. They are made from thoroughly dried and selected Norwegian pine in over a thousand different sizes, most of them having the ends trimmed, and are either planed or papered. The sizes range from 11½ to 36 inches long, 6 to 19 inches in width, and ⅛ to 1 inch in thickness, the sizes in greatest demand being 17 to 32 inches long, 7 and 8 inches wide, and ⅜ and ½ inch thick. A board 18 inches long, 7 inches wide, and ⅜ inch thick, either planed or papered, costs about $2.80 per gross."

Lumbering Conditions in Russia

United States Consul W. F. Doty, of Riga, Russia, in a recent report, gives some interesting information regarding the lumbering business in that part of Russia, from which a large quantity of lumber is exported into Great Britain to compete with shipments from Canada.

"Lumber is one of the principal industries of the Riga Consular district," he says, "and provides employment in the forests throughout the winter months for a large proportion of the agricultural population of these provinces."

The region from which the lumber is obtained comprises a forest area of 53,473,732 acres, situated in fourteen provinces and yielding timber for the most part of medium-sized red and white pine. Other varieties available, but of less importance to the trade, are birch, alder, and aspen. Of these forests 9,374,310 acres are State owned, 36,891,245 acres are manorial woods, 2,730,113 acres are Crown lands, and the remaining 4,478,064 acres are peasant and other tracts.

The value of forest lands in this district depends upon several conditions, the two main being locality and the amount of timber obtainable for export purposes. An average price per acre can not be given, as in addition to the timber suitable for the export trade, which mainly influences the price, there is often a considerable quantity of inferior stuff available for local consumption in the shape of firewood, shingles, etc. For a forest lying near the River Dvina the value per dessiatine may range from 100 rubles for ordinary growth to 300 rubles for special growth ($19.07 to $57.22 per acre).

Cost of Getting Out Logs—Sawing and Other Charges

Timber is usually sold in this district either in tracts for a stated sum, or at prices varying with the dimensions of the logs. The logs coming to Riga range from 7 to 9 inches at top; the bulk are 8 and 7 inches, the quantity over 9 inches thick being very small.

Felling the trees and hauling the logs to the railroad or nearest stream is for the most part possible only during the season of snow roads in winter, and is either undertaken by the purchaser, usually a lumber dealer, or the seller agrees to deliver the logs to the contracted spot, whereby it often happens that a mild winter or the absence of snow roads makes it impossible to haul out the logs from the forest and penalties for breach of contract are incurred.

The prices paid for felling and hauling vary according to the price of labor current in the district and the distance to be hauled. An estimate of the cost of bringing to Riga an average log of 28 feet length, diameter at butt end 11 inches, at top 8 inches, from a forest in the Province of Vitepsk lying ten miles from the river Dvina, gives, per fathom of 7 feet: Felling and hauling, 15 kopecks; making roads in forest, 3 kopeks; tying into rafts, 3 kopecks; rafting to Riga, 15 kopecks; making a total of 36 kopecks, or 18½ cents.

The cost of sawing at the railroad is stated to be $5.15 per standard of 165 cubic feet; cartage at station, $1.03 per standard; average railroad freight to Riga, $5.15 per standard. The total expenses—sawing, lighterage, etc.—incurred at Riga to convert logs which have been rafted down the river into lumber for export would amount to $9.27 per standard. Sawmill charges at Riga are $6.70 per standard.

Terms of Sale

Purchasers of forest lands seldom export in person, but sell to exporters and millowners at the different ports on terms usually for two-thirds cash and one-third bills, running three, four, and six months, which they afterwards discount at the local banks. By producing a properly executed contract, which is deposited as security for the loan, firms of good reputation are able to obtain from the banks advances on their purchases of forest lands up to two-thirds of the estimated value of the tract, at rates varying from 6½ to 8 per cent. On sawn goods and rafts lying at Riga, loans up to 70 per cent. of the market value can be obtained if the goods have not been previously pledged. There is always sufficient capital available to finance the lumber trade at Riga.

Forestry Convention at Victoria, B. C.

Successful Gathering of Prominent Men to Promote Wise Use of Our Forest Resources — Important Resolutions Adopted

The fourteenth annual convention of the Canadian Forestry Association was held at Victoria, B.C., on September 4, 5 and 6 and was one of the most successful and largely attended that the association has ever held. Representatives were present from every province of Canada and from many important lumbering points in the United States. Among the prominent members present were the following:

Hon. Jules Allard, minister of lands and forests, Quebec, P.Q.; E. T. Allen, forester, Western Forestry and Conservation Association, Portland, Oregon; W. A. Anstie, secretary, Mountain Lumbermen's Association, Calgary, Alta.; Thorpe Babcock, secretary, West Coast Lumber Manufacturers' Association, Tacoma, Wash.; F. S. Becker, secretary, Pacific Coast Shippers' Association, Seattle; Hon. C. H. Campbell, attorney-general of Manitoba; R. H. Campbell, Dominion director of forestry, Ottawa; C. S. Chapman, secretary and manager, Oregon Forest Fire Association, Portland, Ore.; Dr. Judson F. Clark, Vancouver; Hon. W. A. Charlton, M.P., vice-president Canadian Forestry Association, Toronto; Roland D. Craig, Vancouver; F. H. Davis, secretary and treasurer, Couur d'Alene Timber Protective Association, Spokane, Wash.; Dr. Bernard E. Fernow, dean of Toronto Forest School, late chief forester of the United States; Geo. Harcourt, deputy minister of agriculture for Alberta, Edmonton; G. W. King, Clyde F. E. Leavitt, forester, commission of conservation; P. L. Lyford, forest engineer, Montreal and Vancouver; A. F. Mantle, deputy minister of agriculture for Saskatchewan, Regina; Paul G. Owen, secretary, Quebec Limit Holders' Association, Quebec; G. C. Piche, M. F., chief of forest service for Quebec; W. Gerard Power, lumberman, Quebec; Arthur J. Price, member of Price Bros., Ltd., Quebec; R. D. Prettie, superintendent of forestry, C. P. R., Calgary; A. H. D. Ross, M.F., lecturer in forestry, University of Toronto, consulting forester to C. P. R.; H. S. Stone, president Pacific Coast Shippers' Association, Seattle; E. W. Tobin, M.P., Bromptonville, Que.; Aubrey White, deputy minister of lands and forests for Ontario; James White, F. R. G. S., secretary, commission of conservation, Ottawa; E. J. Zavitz, forester, Ontario department of agriculture, Toronto.

On Wednesday evening, Sept. 4th, a reception was tendered to the delegates in the Parliament Buildings by the Premier of B. C., Sir Richard McBride, and the members of the Executive Committee.

The Premier's Welcome

The official opening of the convention took place on Thursday morning, September 5th, when an address of welcome was delivered by Sir Richard McBride who remarked that they were convening in a province which contained the largest amount of merchantable timber in the Dominion and where the most up-to-date forest legislation was in force.

Hon. J. R. Flemming, the premier of New Brunswick, spoke of what is being done there and paid his tribute to the forward movement shown by British Columbia.

Hon. Jules Allard, minister of lands of Quebec, also spoke briefly.

Hon. Colin Campbell, attorney general of Manitoba, came to the convention for the first time as the representative of a member of the confederation whose bounds have lately been quadrupled by the inclusion of a large part of the unorganized districts which lie to the north.

All of these speakers dwelt upon the Dominion as binding all in one grand purpose of preserving the common heritage of all in the forests of the land. The speakers in addition, included Dr. Fernow, dean of the faculty of forestry in the University of Toronto and Aubrey White, deputy minister of lands, forests and mines of Ontario.

The business sessions were commenced on Thursday morning, September 5th, by Hon. W. R. Ross, Minister of Lands for British Columbia, who delivered a much appreciated address upon "The Guardianship of the Public Forests of British Columbia."

The speech of Sir Richard McBride showed how impressed the head of the Government of British Columbia is with the importance of acting quickly and on an adequate scale to secure the best methods of handling the great forest asset of the province. The same idea was carried further by Hon. W. R. Ross, Minister of Lands for British Columbia. R. H. Campbell, the Dominion Director of Forestry, sketched the present forest situation throughout Canada, pointing out the mistakes of the past and showing the great opportunity which lay before British Columbia to do in time what other parts of the country had not been able to do until too late.

The subject of "Fire Protection" was discussed by R. E. Benedict, Assistant Forester of British Columbia, who outlined what the newly organized service was aiming at. This was followed by a paper by Clyde Leavitt on the relation of the Railway Commission to fire protection on the railways, and by R. D. Prettie, who showed what the C.P.R. was doing, both in regard to protection and looking ahead for supplies.

A number of practical addresses upon various branches of forestry were delivered during the sessions of the convention and the discussion served to bring out many comments of value, regarding prevailing conditions.

Removing Forestry Out of Politics

One of the most important subjects of discussion was the problem of removing the management of the forest resources of the country out of politics. Mr. H. R. MacMillan, Chief Forester for B. C., is one of the chief among those who are seeking to bring about this result. The proposal is to put all forest administration under civil service, based on the British principle and regulations, and to appoint, tive co-operation of the Dominion and the provinces. A proposal has also been made to enquire into the actual state of forest resources in all the Provinces.

At the concluding session resolutions were adopted without discussion congratulating the government of British Columbia upon the excellent showing it had made in forest conservation; endorsing a recommendation by the British Columbia Lumber and Shingle Manufacturers' Association that a course in logging engineering should be established at the University of British Columbia; reiterating the former pronouncement that all appointments in the forest service of the Dominion and provinces should be based on ability and experience; that squatting and settlement should not be allowed on lands that are chiefly valuable for timber; that the fire acts of the three prairie provinces be revised so as to provide more efficiently for the prevention of fire; urging upon the Dominion and Provincial governments the advisability of adopting measures as soon as practicable for disposing of logging debris; recognizing the work of United States foresters and hoping for co-operation between the two countries.

An announcement was made by the Hon. W. R. Ross that a school of forestry will be established at the University of British Columbia.

T. H. Linlayson, of the Dominion Forestry service, whose territory covers Alberta, Saskatchewan and Manitoba, told of the harmonious results obtained since the first establishment of fire patrols on the prairies.

Various speakers alluded to the fact that practically all of the young men now engaged as trained foresters in Canada have been pupils of Dr. Fernow, Dean of the School of Forestry in the University of Toronto.

A Chair in Logging Engineering

Among the interesting visitors who attended the convention was Mr. George M. Cornwall of Portland, Ore. Mr. Cornwall is the publisher of the "Timberman," but his chief business in Victoria was to have the convention endorse a project for the teaching of scientific logging. He proposed that a chair for the teaching of this subject should be established in the new university. A movement is also on foot for the establishing of similar chairs in the universities of the Pacific coast states.

"There are over three hundred logging railroads in the coast states and British Columbia," said Mr. Cornwall in an interview, "and their total mileage is over four thousand. You can easily see, therefore, that there is an opening for a large number of young men who would understand both the technical and practical aspects of this work. Our idea is that they should spend seven or eight months in the bush and the rest of the year in college. Young men would have no trouble at all in being self-supporting while learning the business. The lumbermen would be glad to get them and to pay them well. There is much more to be learned than an outsider would think. We would have boys start at about 18 years of age and continue their course in the bush and in college, under competent instructors in both places, until they were twenty-six, making a total course of instruction spreading over eight years. Their earning capacity would increase steadily from year to year and at the end of that period they would be competent in age and knowledge to take charge of gangs, survey and lay out roads, and in fact do everything connected with

the getting of the timber from the forest to the mill, in the most economical and profitable way."

Officers for the coming year will not be elected till the annual business meeting in Ottawa next February. It was taken for granted that Hon. W. A. Charlton will be the next president. The selection of a place for the next convention was also left over to the Ottawa meeting. Winnipeg, Saskatoon, Regina, Moose Jaw and Halifax all asked for the choice.

West Coast Lumbermen at Vancouver

Monthly Meeting Held for the First Time in Canada—B.C. Members Tell How They Won Out on Odd Lengths

The monthly meeting of the West Coast Lumber Manufacturers' Association was held in the banquet room of the Vancouver Hotel, Vancouver, B.C., on Aug. 30th. This was the first meeting of the association held in Canada. The Pacific Lumber Inspection Bureau held its regular meeting on the day previous. The members of the inspection bureau are all members of the association.

The secretary's report called attention to the campaign for members being carried on by his office and pointed out the advantages of securing the memberships of all of the representative lumber manufacturing concerns on the North Coast.

The finances of the association were reported to be in excellent shape.

The work of the association in extending foreign markets was reported on and it was shown that the association had received a list of the United States consuls in all foreign countries, and data will be gathered from them regarding the use of fir and cedar in those countries. The department of Commerce and Labor, in furnishing the list of consuls, called attention to the fact that it now has a commercial agent who is gathering information on this subject, and that his report when made will be published for use of those interested in the foreign trade.

Manager Miles made a short report, part of which was a history of the market for the last 15 months. According to his statements the downward tendency of prices during 1911 and the early months of 1912 was due largely to a surplus of stock left over from 1910, as the shipments of 1911 both in rail and cargo business far exceeded those of 1910, but prices were lower because of the 1910 surplus cut.

A letter from the Bolcom Mills (Inc.), of Seattle, called attention to the old question of cash discounts and the unfairness to the manufacturers in the method usually employed. H. J. Mackin, of Fraser Mills, B.C., said British Columbia lumbermen were about as badly off in this respect in their eastern Canada territory as the manufacturers of Washington and Oregon, and felt that the matter was largely controlled by competition with lumber manufacturers and that they were almost compelled to meet the terms of others selling in the same territory. This subject was held over to be considered at the next meeting of the association.

One of the features of the meeting was a discusstion upon odd lengths. Mr. A. D. McRae, of the Canadian Western Lumber Company, being requested to speak upon the subject said in part:

The history of this case you are all familitr with, as your former secretary came up here and talked us into the notion of manufacturing odd lengths. To begin with we had the advantage of you in introducing this plan because we had a must more restricted district to market our product in. The opposition from the retailers at first was very strong and the question came to be: "Should the retailer dictate just what he was to get or should the manufacturer say what he would sell?" While we were at it we bundled up the short lengths with the long. Our own company operates about 185 retail yards and we found that it had no trouble selling the odd lengths or the short either when they were bundled with the long. A farmer seeing some short pieces bundled in with long ones would hardly have nerve enough to ask the dealer to cut the bundle open and take out the short ones. They go every place in our markets now without any trouble at all. It took about six months to work off the even lengths in stock, but in the meantime we were all manufacturing odd lengths. We won out because the mills all worked together. And they worked together largely because we had an inspector checking them up all the time and furnishing the mills with the information as to just who was making odd lengths. I estimate that it means a saving of more than $25,000 a year to my company.

Mr. H. J. Mackin, also speaking on this subject, said he figured that his company saved $60 a day in the planing mill by not trimming off the odd feet. In his opinion the most important thing was bundling the short lengths with the long. His company saves the short lengths from four feet up, but makes its bundles mostly 12 feet and up. He had been informed by many of the retailers that they preferred to have the short bundled with the long and that they formerly sold short lengths, amounting to about 20 per cent., at from $3 to $5 less than long lengths and threw away the 4-foot lengths. "We now bundle a 5 and 6-foot piece in a 11-foot bundle," etc.

Mr. E. G. Griggs said that if the meeting had done nothing more than convince the members from the South that British Columbia mills had made a success of this plan it was well worth the long trip. He expressed it as his opinion that this policy would be adopted by the manufacturers in Oregon and Washington at the next meeting of the association.

E. J. Palmer, E. H. Heaps and F. L. Beecher, all prominent British Columbia lumbermen, gave short talks, telling their brother manufacturers from the States what they were doing to extend their markets and get better prices for their lumber by selling short and odd lengths, encouraging wood block paving, etc.

In the discussion of wood block paving it was brought out that the principal trouble in the West had been that the blocks were not properly treated and laid. Mr. R. H. Alexander said wood block paving had long passed the experimental stage, and its high qualities were recognized in other parts of the world. Anybody who had ever stood at Trafalgar Square, London, and seen the endless chain of traffic passing over the wood block paving there could testify to its qualities.

The question of standard sizes of car siding and lining was brought up by the British Columbia millmen, who recommended to the mills of Washington and Oregon that they make fir car siding and lining ¾-in. thick instead of 13/16-inch. The British Columbia mills have been doing this for a long time and it is satisfactory to the Canadian railroads. President Griggs said he thought the association ought to go farther than car siding and make standard all of the sizes now being manufactured by the British Columbia mills.

Large New B. C. Mill Opened

George F. Johnston, of the financial house of Johnston, McConnell & Allison, of Montreal, has just returned from British Columbia, where he opened a new mill belonging to the British Canadian Lumber Corporation, at New Westminster. Mr. Johnston, who was president of this company, performed the opening ceremonies. The mill is one of the largest electrically equipped mills on the American continent and starts off with a minimum daily cut of 250,000 feet of lumber. By doubling the shift, which will be done in a short time, the output will be increased to 550,000 feet a day. Mr. Johnston reports that the lumber industry in British Columbia is very active and wholesale prices have recently advanced $1 a thousand.

Conditions are fairly safe now for the forests of British Columbia in the matter of fire this year. The week-end reports sent in to the chief forester, Mr. H. R. Macmillan, by the divisional wardens are all most hopeful in tone. There has been a good deal of rain and the vegetation has not dried up except in the very dry districts. The constant patrol kept up by the fire rangers, seconded by what the railway companies have done along their lines, has materially reduced the danger, and it is not unlikely that the rest of the season will be got through without any serious fires. Testimony is borne by the divisionai wardens to the value of the patrol system.

The extensive work being done in protecting the forests of British Columbia by the greatly increased service of wardens under the new forest branch of the lands department, continues to be manifested in the weekly reports sent to Chief Forester MacMillan from the divisional fire wardens. As the summer advances the forests usually become drier, but so far the efforts of the wardens and the men on patrol have been aided by the rains falling in mountain sections and the conditions of the ground and vegetation.

If timber rates in British Columbia were better, a market could be found in Australia, says Mr. F. C. Howard, managing director of the Broken Hill Silver Mining Co. and the Broken Hill Globe Timber Co. The mines import much timber from the Pacific coast, mostly from the United States, but Mr. Howard says that because of sentiment they would sooner buy in British Columbia if the rates were as good.

Important Deal in Progress in Alberta

Negotiations for the purchase of the fifteen thousand acres of timber land belonging to Dr. Alexander Forin and others in the Province of Alberta, which was referred to in the Canada Lumberman of August 15th, are reported to be progressing favorably. The berth is reported to contain approximately 100,000,000 feet of timber, including tie material for about 700,000 ties. The price at which it is held is in the neighborhood of $200,000, not $100,000, as was at first reported. A railroad is being built to the limits and recent information is to the effect that it will be completed during the coming winter.

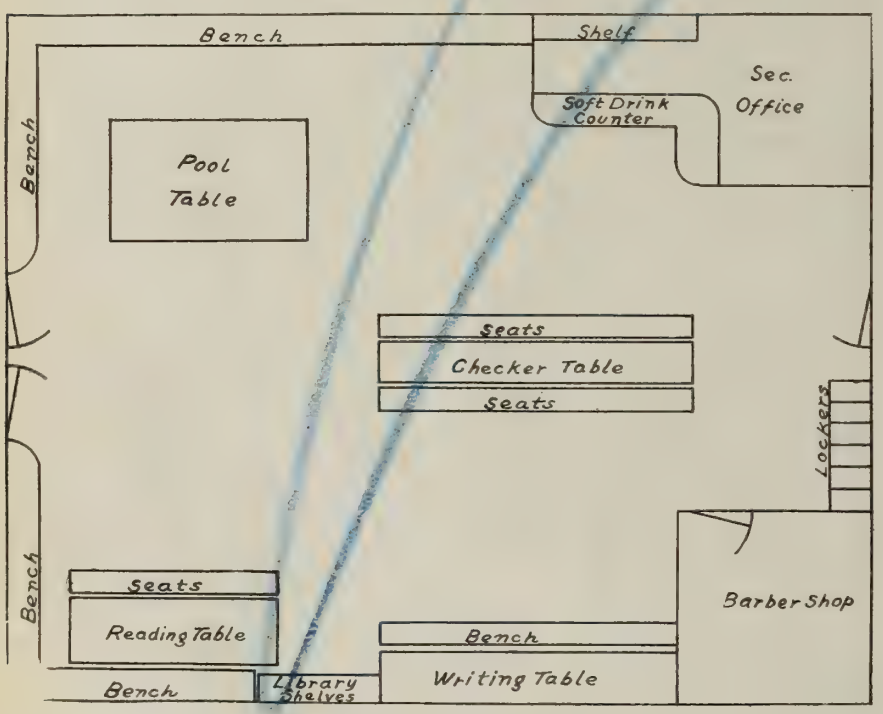
Y.M.C.A. Work in the Lumber Camps

Growth of a Movement Which Divides Between Employer and Employee the Profit of Increased Efficiency — Address Before Logging Congress

By J. A. Goodall

THE particular need of the lumber industry to which I wish to draw your attention is the vanishing personal relationship between the employer and the employee. A need, by the way, that is not confined to the lumber line alone, but is felt by the employers in all branches of industry. I cannot improve on the statement of this need made by President Griggs of the National Lumber Manufacturers Association at their recent annual meeting, when he said: "Where personality no longer appeals and industry becomes so large that men furnishing capital do not recognize the hardship of labor, it is important that greater need be given to the welfare of the employee. I believe employers are realizing more and more the obligation they owe to society and if the employee can be brought to assume his own responsibility the condition of labor will continue to improve."

I think this need is recognized by all thoughtful employers. Recently the manager of a large concern said to me: "Ten years ago, when we had but 75 or 80 employees, I knew each one by name, and frequently the members of their families, but to-day we have a crew of 700, I am overloaded in the office and about the only ones I know are the few that are left from the original crowd." Another gentleman, the manager of several cement plants, who is only able to visit each plant occasionally, said: "I am willing to give or do anything I can if our men would only be loyal to the company." Lack



A Portable Y. M. C. A. Building 40 x 32 feet

of personal contact between employer and employee begets indifference, and this in return results in inefficiency. You are giving much attention to conservation. You are having regard to the material waste by fire, by neglect and by unskillful handling, and then, after you have done your best in felling the trees and sawing the timber, you must consider reforestration for the sake of the future.

Industry is guarding the time element more carefully than ever. Every time-consuming feature that can be dispensed with is quickly cut off. There must be no lost motion.

Conserving the Human Element

Great genius has been shown in conserving material resources, but how about the human element in the lumber industry? Efficiency in production that secures the maximum output to the minimum waste of life, limb or capacities, is pressing for consideration. Conservation congresses have become the order of the day, but attention has principally been directed toward the conservation of commodities, and yet the human conservation is by far the most important aspect of the theme, whether considered from the standpoint of the worker, the industry or society. Mr. Griggs emphasized this same thought at the national manufacturers meeting when he said: "If dividends are sought at the expense of our citizenship, it will not profit us." It is here that the Young Men's Christian Association offers service. The modern Young Men's Christian Association in an industrial community represents the employer, the employee and society, and its results include the two great factors that go to make human efficiency—avoidance of waste and the development of creative power.

Because of this I feel justified in referring to the Young Men's Christian Association as an efficiency producing agency.

By what plan or method does the association prevent waste and develop creative power? How does it increase efficiency? The answer is this: The association is a character-making force. Right standards of character are the best guarantee against waste of human energy and the basis of the highest creative power. It is not necessary to argue this here, for to those who handle men it is a self-evident proposition. Sober, steady,intelligent workers must be found among men who have the right character basis, who follow right standards promote, and discipline on merit. This project will require legislaof conduct, because they have the right character back of their conduct. This is true alike of individuals and companies and of nations. It is not an accident that the nations that are governed by the highest character standards hold the industrial supremacy of the world.

I have tried to suggest three points: 1. That the modern objective in industry should be efficiency in production. 2. That the human factor in industry is of chief importance. 3. That permanent efficiency is dependent upon character. May I add to these a fourth proposition, namely, that there is no higher standard of character than that which we call "Christian," using "Christian" in its broadest sense. I believe that because the Young Men's Christian Association is a Christian character-making force it is having an increasing place in industry.

The Movement's Strong Claims

The association is especially adapted to serve in industrial fields because: 1. It is co-operative; employer and employee unite for mutual help. It is non-paternalistic. 2. It ministers to the allround man—physical, intellectual and spiritual—and not only to the individuals, but the whole community. 3. It has trained leadership—the secretary, who is the representative of the interests of the employer, the employee and the commuity—is an essential to success. 4. It is related to a world-wide movement and has supervision by representatives of both state and international committees.

The modern association in an industrial community has been successful regardless of the section of the country or the type of workers. Employers welcome it regardless of creed or condition. Religious differences are not a bar to either membership or the use of its privileges. Men of all creeds and no creeds are enrolled among the half-million members in the 2,100 associations in North America. There are more Roman Catholics in the railroad department, for example, than from any other denomination, and in some places more than from all other denominations combined. Even with the non-English -speaking the association is working successfully.

During the past five years association branches in the lumber industry have increased rapidly in the lumber fields. At present it is serving the employees of between twenty-five and thirty lumber firms extending from the eastern fields of Newfoundland and New England, Ontario, Minnesota, Mississippi, Louisiana and in Washington.

The Eastman Gardner Company, of Mississippi, were the pioneers in encouraging the establishment of associations in their sawmills and camps in the United States. After two years' experience, Mr. Geo. S. Gardner writes: "Sober, saving permanent labor is one of the best assets the lumber manufacturing concern can have. Our experience thus far has been that the Y. M. C. A. is of the greatest assistance toward this end, in that it helps all to help themselves morally, mentally and physically." Superintendent Mahoney, of the same company, said: "The Y. M. C. A. has far exceeded expectations; we cannot do without it, and when we move to the new camp, I shall have a building up in advance so as to avoid a break in the work."

The results of the Y. M. C. A. work among the loggers of the southern field have been so successful that the members of the Yellow Pine Manufacturers' Association, at their annual meeting at New Orleans last January, voluntarily inaugurated a movement and provided funds for the purpose of maintaining a traveling secretary to devote his entire time to promoting Y. M. C. A. work to the various camps and sawmill towns of their territory.

Results That Really Pay

The four lumber companies which maintain the club house at Cloquet, Minn., have expressed their appreciation in the following

statement: "We are very glad of an opportunity to express our sincere appreciation of the work done by the Y. M. C. A. here during the past year. Until last May there had been no public place in Cloquet where men and boys could go for clean and profitable entertainment during their leisure hours. It is hardly necessary to add that the splendid work being done by the Y. M. C. A. has exceeded the expectations of its most loyal friends, and that it is destined to have a marked influence on the community, and thus become a distinct benefit to the companies is undoubted."

The first industrial Y. M. C. A. to be established in the northwest lumber territory was at Doty, Washington, where it has been in operation about one year. The manner in which it was secured illustrates the plan of co-operation by the association that brings the employer and employee together for the mutual best interest of both. The proprietors of the Doty Lumber & Shingle Company, realizing the need of such an agency in their mill-town, invited a traveling representative of the Y. M. C. A. to visit and investigate their community. As a result of his visit, considerable interest was awakened and a desire expressed on the part of the men to have such an institution established at Doty. This resulted in a conference of representative employees with the officials of the company and the association, at which time the company agreed to provide a major portion of the expense of the building and to contribute annually the heat, light and water and a proportion of the maintenance, provided the employees would raise approximately $1,500 and a part of the maintenance. The men were pleased with the offer and went about the task with enthusiasm, making a systematic canvass in which they solicited every man in camp, with a result that instead of securing $1,500 they secured $3,500.

This organization is managed by a committee of employees, of which the general manager is a member, and the activities are directed by a trained secretary of the Y. M. C. A. The building contains, on the first floor, a large social lobby, kitchen, night school room, and game room equipped with two billiard tables. An attractive fireplace, a piano, a victrola, chess and checker games, easy chairs and a well-stocked reading table makes the lobby the most attractive place in town in the evening. A carefully-planned schedule of the activities enables the building to serve all classes of the citizens. The building is reserved for the women two afternoons each week, and the secretary has helped them in organizing a basket-ball league. The boys and girls of the town have the building at their disposal from 4 until 8 p.m. each evening, and are given athletic instruction and are directed in their games by the secretary. After 8 o'clock the building is used exclusively by the men. The gymnasium is equipped with a large spectators' gallery and is a popular place of entertainment for the families of the town.

Two Classes of Activity

The industrial work of the Y. M. C. A. is of two classes—the camp work adapted to bring the threefold activities of the association to the working men in the logging and construction camps, the other being the club house work suited to the permanent mining and sawmill town. In the northwest are four permanent club houses erected by the employers and maintained jointly by them and the employees, each one of these club houses being in charge of a trained secretary of the association. The finest and most expensive of the four is located at Kellogg, Idaho, and was built by the Bunker Hill & Sullivan Mining Company for its employees at a cost of $37,000. It has been in operation a little more than a year. In that time it has done much to transform the moral and social life of the community. The general manager, Stanley A. Easton, in a recent letter, said: "The Y. M. C. A. building, which was thrown open to our employees and to the public February, 1911, has received continued and active patronage both from the general public and from our employees, and the interest and good work it has been doing is productive of very much good. It holds the interest of the men in spite of the many other attractions in this community, and we feel that our support of it has been amply justified by the results secured." There are also in the northwest five construction camps where Y. M. C. A. secretaries are located. The equipment for temporary camps usually consists of a tent or rough board structure to match the other camp outfit. These buildings are usually supplied with small games, phonographs, a big list of daily papers and magazines, and the men are furnished free stationery and are encouraged to keep in correspondence with their homes. Where it is possible the secretary arranges to cash the men's cheques and thereby is enabled to encourage the men to start a saving account. One secretary in eight months handled $40,000 for the men, putting $3,000 in the savings bank. Practical talks on health, hygiene and first aid to the injured are given by doctors secured by the secretary, and religious meetings are held on Sunday nights.

The Camp Secretary's Work

The preaching of the camp secretary is more by example than by precept. Instead of lecturing the men about getting drunk on holidays the secretary usually promotes a patriotic celebration lasting from eight o'clock in the morning until ten o'clock at night, the programme being made up of wholesome amusements that appeal to the men, including baseball games, wrestling contests, tugs-of-war, a greased pole, pie-eating contest, etc. A patriotic address is always included and a big display of fireworks at night. In one camp of 400 men two and a half miles from a railroad town with four saloons, on a holiday such a programme was conducted and the timekeeper reported that less men left camp that day than on ordinary working days. The camp superintendent, who had had several years' experience with the Y. M. C. A., has this to say: "Our camp is located within two and a half miles of a town served by two railroads, which has considerable attraction for the men, but we have found that by providing a club room for their amusement and instruction, the tendency to seek diversion elsewhere is greatly lessened, and there is no question in my mind but that the influence of the club tends not only to keep a large proportion of the men contented, but also enables us to secure and retain a better class of men than would be the case if we did not have the association influence."

The first Y. M. C. A. work in the lumber camps in the northwest was started last year in the camps of the Anaconda Copper Company, near Bonner, Montana, the secretary visiting the several camps carrying with him a folding organ and reading matter for the men. Some work was done in the direction of getting the men to save their wages and to make profitable use of them. The service was appreciated fully by the men, and is most heartily endorsed by the officers of the company.

The most recent development in this type of work has been the opening of the Y. M. C. A. in the camps of the Sunset Timber Company, near Raymond, Wash., and the plan followed illustrates the method used in industrial plan of work. Following a visit to the camps by one of the secretaries, the men started a petition asking the company to co-operate with them in the establishment of a Y. M. C. A. in their camp. The company officials replied that they would erect a club house and provide an appropriation to cover the annual salary of the secretary if the men would provide the funds for the furnishings of the building and incidental expenses for the first year. The building will be 32 x 40 feet, and is so framed that it can be made into two separate buildings, 16 x 40 feet each, affording a club room for each camp when the camp is divided. The building will contain a social lobby with easy seats around three sides, part of the seats being arranged so that the men can recline and rest while reading. It will be equipped with billiard tables, reading and correspondence table, large chess and checker table to accommodate fourteen men, also a barber chair and a soft-drink counter where soft drinks and confectionery will be sold to the men. The key to every successful work of this kind is the trained secretary, and a study of the young man in charge of the work at the Sunset Timber camps will be interesting. He is a jovial little Dutchman, who has worked for years as a machinist, but later decided to give his life to Y.M.C.A. work. He is an expert cornet player, having been a bugler in one of the regiments of the Spanish-American war; has a keen mind, takes a healthy interest in athletics, but above all is a lover of his fellow men and delights in this sort of work. He is banker, lawyer, nurse, missionary, umpire, athletic instructor, orchestra leader and school teacher to the 250 men in that camp. He inaugurates all sorts of games and contests. He is a friend to every one. He shows them the folly of the periodical trip to the city and the squandering of their earnings, a thing that is a curse to the logging business probably more than any other.

The Economic Side of the Problem

We are willing to predicate this work upon its economic value to the industry. It always pays dividends on the investment. The cost includes two items—equipment and maintenance. The equipment may range from a $1,000 to a $30,000 building, the equipment includes heat, light and water and the secretary's salary. With these guaranteed by the employer we can leave the remainder of the operating expenses to be borne by the employee. Our plan is to visit the field and submit a report which will get the employer interested first; then the employees are consulted, and if they do not want us we go no further, no matter how interested the company may be. (I say this is the plan, but as a matter of fact, we have never had a group of employees turn down the proposition for a Young Men's Christian Association). Success depends upon getting the interest of the men. When this has been done and the equipment and the secretary have been secured, the organization is effected and the work begins. You then have in relation to your industry a force for individual and community betterment that is a part of a world-wide movement, and which, by this fact, takes on a larger strength and permanency than if it were strictly local. The association work is unselfish; it divides between the employer and employee the profit arising from increased efficiency; it gives to society the benefits of improved standards of life; it transmits to the men themselves the blessing of transformed character for time and eternity, glory to God, in whose name the Young Men's Christian Association serves.

Forest Protection in British Columbia

Detailed Explanation of Provincial Policy and its History—Address Prepared for the Recent Pacific Coast Logging Congress

By the Honorable W. R. Ross, Minister of Lands, Victoria, B. C.

I HAVE but recently returned from a trip of inspection to the Northern interior of the Province of British Columbia—a trip made by me for the purpose of examining at first hand the problem of land settlement and forest administration in the new regions about to be opened to the world by the approaching completion of the new transcontinental railway, the Grand Trunk Pacific. My absence from headquarters has naturally caused an accumulation of work, the pressure of which, I much regret to say, prevents my carrying out my original intention of being present in person at this convention of the Pacific Logging Association. The best I can do under the circumstances is to write a brief summary of the present situation concerning the forest administration committed to my care as Minister of Lands in the huge western province of Canada that shares with Washington, Oregon and California the present trade and future development of the Pacific Coast.

The forest policy pursued for many years already by the Government of which I am a member creates a special reason for my interest in the proceedings of your association. No other government has drawn so large a portion of its revenues from forest sources; in few other countries does general commercial prosperity depend more upon the success of the lumbering industry than it does in British Columbia; and I venture to say that no government is more alive to the fact that the conservation of forest resources is a business proposition that needs vigorous practical work on a large scale and hearty co-operation between Government, lumbermen and the public.

I will not weary this meeting with statistics, but in order to make clear the present situation in our province to those of you whose attention is at times more or less absorbed by matters of more domestic concern, including Presidential elections, I will describe briefly the history of our forest legislation. In early days, of course, the single idea was to encourage settlement, and timber lands were sold to anyone with courage enough to buy them. Counting in the timber which went with the land granted in aid of railway construction there are consequently about one and a half million acres of valuable forest Crown granted and in private ownership to-day. These are subject to annual tax of 2 per cent. levied on a very conservative valuation.

When the Canadian Pacific Railway had joined the Province to the rest of Canada the first faint stimulus was given to the lumbering industry, and in 1888 the system of leasing timberlands for 20 or 30 years was adopted. The rental for these leases was at first ten cents an acre, fifty cents a thousand feet being charged as stumpage on any timber cut by the lessees. Some few years later, in 1896, the sale of any lands on the Coast carrying 8000 feet or more per acre and of those in the eastern portion of the Province carrying 5000 feet or more was prohibited by law. The leasing of timberlands continued to be the standard method of providing the lumbermen with material for their operation up to the year 1905, though, of course, the conditions of the leases were varied from time to time. Thus we find that about one million acres are held under lease today at rentals varying from ten to 25 cents per acre except in the case of certain leases granted at lower figures in 1901 to encourage the establishment of the pulp industry in the Province. Most of these leases possess the privilege of renewal every twenty-one years, the rental being naturally subject to readjustment when the period of renewal arrives.

History of the Forest Policy

It was in 1905 that the present Government adopted the remarkably successful system of special timber licenses, and for over two years the staking of these licenses created a tremendous movement and revealed to the whole American continent the greatness of British Columbia's forest resources. A special license, as most of you are aware, conveys to the holder the cutting rights over a square mile of forest for a year, and, provided the conditions of the license are fulfilled, these rights are rewable from year to year as long as merchantable timber in commercial quantities remains standing on the ground. The Government had several definite purposes in view in granting these licenses. In the first place, the immense forests of the Province had, previous to 1905, been contributing no appreciable revenue for the development of the Province. They represented so much unproductive capital, and the progress of the Province was being seriously retarded for lack of money with which to open up new regions for settlement by means of roads, bridges, surveys and other public works. The leasing of timberlands for long periods at fixed rates was a clumsy, unscientific method of raising revenue that was clearly out of date. Then again, the lumbering industry had reached a point of development at which its further progress depended upon securing definite sources of supply for future operations that would justify the large investments that are necessary nowadays for profitable working. The third main object of the licensing system was to interest outside capital in the Province.

Every policy is open to objection, but taking a birdseye view of the whole situation in the light of subsequent experience it is quite clear that the Government achieved the three ends it had in view in a very successful manner. Licenses covering some nine million acres were issued; a steady revenue of about two and a half million dollars was secured (and this has been devoted wholly to the public works that have enabled the Province to forge ahead so rapidly), and the lumbering industry obtained the supply of timber it needed for the important operations already conducted in this year, 1912, and for the immensely greater annual cut that the near future will see.

Stumpage Charges Not Taxation

The fact that under the licensing system investors were required to pay for their cutting rights by annual installments has led some critics to the mistaken idea that the Government of British Columbia was levying heavy annual "taxation" on the lumbermen. It should be pointed out emphatically that the installments of the purchase price of the stumpage thus sold by the Government have no connection with taxation, and that the payment of annual rental of 22 or 18 cents an acre—which works out at a very small amount per thousand feet—is a far more advantageous arrangement for the lumbering industry than the locking up of capital in the heavy investments that would have been necessary between the years 1905 and 1908 had the Government required cash payment down for the value of the stumpage. Besides this, the levying of the extremely moderate charge of 50 cents a thousand feet only at the time when the timber has been cut and is yielding its profit to the operator shows that the Government has done its best to facilitate the financing of an industry whose importance to the country is so great.

I have dwelt at some length upon the financial side of our forest policy because the partnership between the Government and the lumbering industry in the utilization of our forests that this has brought about has led to such happy results in the way of co-operation against the fire hazard. For some years past my department has been maintaining a constantly increasing force of fire wardens during the summer months, but, at the last session of the legislature the creation of a Forest Protection Fund for the protection of the resources in which both the lumbermen and the Government are equally interested enabled the Government to undertake this great work in a far more effective way. Every licensee or lessee of public timberlands and every owner of private timberlands now contribute one cent an acre to this fund, and the Government puts up dollar for dollar. We have thus about $220,000 earmarked for forest protection alone this present season, and, should this amount prove insufficient the law provides for its increase to whatever may be necessary. Through this fund we have already established some one hundred and forty-two fire districts in charge of district wardens controlled by the inspectors of the fifteen divisions into which the Province has been divided, who, in their turn are under supervisors and the headquarter officials of the forest branch of my department. The staff of regular wardens is automatically increased in spells of hot weather by the hiring of temporary patrolmen on the principle that it is far better to pay a certain number of men to watch dangerous places than to hire perhaps fifty times that number to fight the fires that might be started there. When fires occur the numerous Government road gangs at work in most sections of the Province are immediately available in each district as the nucleus of a fire-fighting force, and such men are hired as are needed. The expense of fighting fires on timberlands where operations are being carried on—whether fought by the operator's crew or by the combined forces of the operator and the district warden—is shared between the operator and the Gov-

Editor's Note.—The above paper was read by Mr. H. R. MacMillan, in the absence of Hon. W. R. Ross. A signal mark of honor and appreciation was shown in regard to this paper when the association ordered that it be printed as a separate pamphlet and distrbuted to all state and federal legislators, lumbermen, loggers, boards of trade and other interested bodies in the five Pacific states of Washington, Oregon, California, Idaho and Montana.

ernment, for instance, in the former case refund or half the expense is made to the operator from the Forest Protection Fund, provided the fire has not been caused by neglect to obey the law regarding the use of screens on donkey engines, the cutting down of snags near donkeys at work, and similar matters. The idea in this half sharing of expenses is that as the Government and the operator pay equally to the Fund they should share equally in the expense of a fire occurring round the operator's holdings. It has been contended that the whole expense of such fires should be borne by the fund, but so many objections to this were foreseen that we preferred to adopt the half-sharing system until we could see our way more clearly.

The Handling of Sash

Before the Forest Act had been brought down to the Legislature last winter many lumbermen expressed the fear that drastic provisions would be included in it to compel operators to burn their slash, and they were doubtless relieved to learn that no such impracticable law had been under consideration. The handling of slash, as I see it, is a matter far too important in its effect on the young growth that will reforest cutover lands, to be dealt with under compulsion by private parties. The question of what slash should be burnt and when it should be burnt must be studied in each different section of the Province by men who are making a business of seeing that the right kind of assistance is being given to Nature in her work of producing new forest crops to replace the crop we are cutting now. For that reason I secured the services of practical men with forestry training who should take charge of work of this nature; and in these sections of the Province where local conditions make it desirable in the best interests of the forest the burning of logging slash will be undertaken by the Forest Service itself at the expense of the Forest Protection Fund. Work such as this and the construction of trails, field telephone lines, look-outs, cabins and fire lines will be undertaken each year following the close of the fire season, and besides its great importance in diminishing the fire hazard the work will serve to keep together throughout the year the picked men of the Forest Protective Service. Temporary men in considerable numbers will always have to be hired for the fire season each year, but unless a permanent staff of officials is kept in existence from one year to another it is impossible to create a really efficient force.

It may not be known to all of you that while some railways in British Columbia are subject to the control of the Provincial Government the majority are under the Federal Railway Commission. Railway construction, as someone has said, used to mean forest destruction all along the line, but under the new Forest Act the Province has been most successful in protecting from fire, timberlands near the lines now being built. We have done this by putting on enough wardens to exercise a firm control over right-of-way burnings, the expense of this work being charged to the railways concerned. But, as I have just said, most of our railways are under the Federal authorities, and until the present year the Province was unable to secure systematic patrol along their rights of way. The representations that we made to the Railway Commission have now had a most satisfactory result, the Chief Fire Inspector of the Commission having established definite patrols after trains that the railways are now required to maintain. Specially appointed Government inspectors supervise this patrol work and see that locomotive screens and other preventative appliances are kept in good condition. I must express my great appreciation of the way in which the railway companies themselves have met us in this matter. We have found that, whatever may have been the case in the past, the up-to-date railway man is nowadays wide awake to the necessity of preventing forest fires.

Necessity for Taking Stock of Timber

Forest protection is only one side—though a very important one—of the forestry work that I am directing. My recent trip through the still undeveloped northern country that the two new transcontinental lines of the Grand Trunk Pacific and the Canadian Northern Railways will soon open up to the lumbermen revealed to me still further the magnitude of our forest resources and the necessity of taking stock of them in order to base our forest policy solidly on facts. A complete timber survey of the Province will be made, the main work being completed, I hope, within three years. Ten parties, each in charge of a technically trained man, are now being sent into the field, most of them being concentrated in that great forest area north of the Canadian Pacific Railway that extends to the line of the Grand Cache; the idea in this connection being to obtain definite information and accurate timber maps of the great undeveloped region that will soon be the scene of extensive lumbering operations. With the data thus obtained the Government will know best how to deal with such matters as timber sales and land settlement. My recent journey through the North considerably altered my former opinion as to the amount of merchantable timber still held in reserve by the Government in the heavily wooded districts mentioned above. When the results of the forest survey are published it will be found that the reserved areas contain a larger and much more valuable stand of timber than is commonly supposed, and it is evident that the sales of stumpage that we shall be making there some day when the new railways are in operation will attract considerable attention from Western lumbermen, perhaps from some of the gentlemen present at this congress to-day. With the abundant waterpower available in certain sections and the magnificent supply of pulpwood, the pulp and paper industry may also be expected to establish itself on a large scale in the Northern interior before many years are past.

Forest protection and timber surveys are matters in which the members of this convention are directly interested. Our Forest Act deals with fire prevention in a very comprehensive and thorough manner. It summarizes and adds something of its own to the most up-to-date legislation that has resulted through the conservation work of the voluntary Forest Fire Associations of the Western States; but I will not inflict a long discussion of its many provisions upon this audience. Again, much of forestry work on which my department is now engaged consists in the working out of administrative plans that are extremely important to us but of very little interest to anyone outside the department. As soon as the preliminary work of laying sound foundations for our forestry service has been accomplished you will find, however, that several lines of work designed to assist the lumbering industry will be taken up vigorously. For instance, studies and tests of the different varieties of British Columbia timber will be made in order to produce standard literature advertising their special uses and value in foreign markets, a form of publicity that will directly benefit the lumbering industry. Again, it is most important that expert studies should be carried on persistently to discover how the abundance of low-grade material that is at present unmarketable can be made use of, and that experiments should be made with by-products. It is seldom worth while for private firms to spend money on such investigations; and the splendid example set us by the experimental plant of the United States Forest Service at Madison, Wisconsin, shows how great the commercial value of such practical Government work may prove.

In conclusion, gentlemen, let me say that one of the most satisfactory features of my work as Minister of Lands in British Columbia is that it brings me in contact with one of the finest and most manly industries in the world—the logging industry. Long may it prosper! And in our present work of laying the foundations of what we hope to make as vigorous and efficient a forest service as the American continent can show, I feel, gentlemen, that the safety and the perpetuation of the forests on which the logging business depends are being secured and the future operations of a great industry safeguarded.

The Use of Electricity in the Woods

By E. J. Barry*

The recent developments in the use of electricity for logging purposes are characteristic of the energy and foresight of the lumbermen of the West. Owing to the vast resources of water power on the Pacific Coast and Inland Empire, no better field could be found anywhere than its application to the logging industry.

The many advantages of electric drive are well known and its success assured in sawmill work. Its extension to logging is a natural result. The outcome of the experiments made by the Potlatch Lumber Co. at Elk River, Idaho, has justified all expectations, and the two especially designed electrically-operated logging engines will be in use this coming season in the woods, having been tried out breaking rollways this spring. Power for these machines is developed from saw and planing mill refuse and the voltage is stepped up for transmission to the logging camps.

The elimination of the fire risk, the fact that no water is required, the much smaller labor cost and the increased output are all factors to be considered in advancing the claims of electric drive as against the steam donkey.

Where a sawmill is operated in conjunction with logging camps or within reasonable distance, the most economical method, naturally, is to develop power from lumber refuse.

Where this is not feasible and power transmission lines are in the neighborhood, power can be purchased at a very cheap rate, as logging engines would form a very desirable load from the power company's point of view. Power lines on the Pacific Coast are carried over large areas of timber and thus would tend to solve the problem of obtaining electrical energy when lumber companies could not generate themselves economically.

It has been suggested that a portable generating plant mounted on flat cars would prove a desirable method of obtaining power for logging, but to the writer this scheme does not appear desirable.

In the first place the size of the generating unit is limited, owing to the question of transportation, and a flat car is not the best of

*Address delivered before the recent Pacific Coast Logging Congress.

locations for high power boilers. The problem of stepping up for long distance transmission could hardly be considered, so that necessarily the area for supplying power would be somewhat limited, say to three or four miles for economical transmission. Water would have to be obtained and fuel, though crude oil would naturally be the best for this purpose. The expense of upkeep for a movable steam plant would be considerable, in view of the lack of suitable foundation, with the incidental troubles of vibration and steam leakage.

The economy of keeping up steam on this machine could not be compared, horsepower for horsepower, with the power derived from refuse lumber or a waterfall, and the question of economy is, after all, the point to consider.

The use of high tension transmission appears to be the practical solution of conveying power through the woods, with portable substations for stepping down to 440-550 volts at each logging engine. The transmission voltage could be 11,000 or 22,000, according to requirements of distance and the amount of power needed.

Unfortunately there are very few figures to present at this time on electric logging, but this coming season will witness several electric logging engines in operation in different parts of the country, which obviously will add to the information on this subject.

The Value of Topographical Surveys

Advantages Secured from Scientific Reports on Operating Conditions — Address before Recent Logging Congress

The modern trend in all well organized branches of industry is to seek for some method or some system which will aid in carrying on work at a minimum cost per unit of product, and by which this cost can be estimated in advance of the necessary expenditure to inaugurate the work.

To find this system, or one step towards accomplishing this result, it is necessary to have in tangible form the results of previous experience and work which must be put in shape so that plans of development and operations may be determined by those whose experience and whose interest qualifies them to direct operations, for the responsible head of the work must be provided with knowledge of conditions and details that he cannot have time to personally obtain.

In this connection the advantage of topographical surveys and maps which are indispensable in many undertakings might fairly be considered indispensable in well planned and conducted timber operations.

By having properly recorded the topographical features of any area the best system of development can be determined, boundaries of logging areas from each point of operation can be fixed, lines of transportation can be laid to obtain the best results, items of cost can be approximated and having it properly presented on the maps the judgment of experienced men, who cannot personally inspect the ground, can be obtained as to the best methods of operation, of its availability to market conditions and relative value as stumpage and possible profits, as to transportation plans and costs, and in fact, most of the questions of policy and plans can be better determined than would be possible without such a survey and map, for the combined experience of all departments of operation can be consulted, as they could not be if all had to make separate investigations.

The product of the logging operations is logs, and the cost at the mill is the standard from which we must work. This cost is made up of the sums of all net expenditures, beginning with the purchase of the timber and including roads, camps, tools and equipment, all labor and overhead charges, transportation, interest, taxes, accidents and waste, and it is evident that there is a broad field, broad enough and exacting enough to require the talent of several specialized lines of training such as we find in other lines of work.

Other leading lines of development and industries such as railroads, electricity, mining, hydraulics, irrigation, mechanics, municipal works and general construction have developed men whom those interests and the world honor with the title of engineer, so the logging industry should seek and develop men who can render a like service to it.

There is a somewhat common idea that a man must have a diploma in mathematics to be an engineer, but while a moderate knowledge of this kind is important, yet a good definition of engineering has been aptly given as "the art of doing that well with one dollar, which any bungler can do with two after a fashion," and the man who can measure and direct to the best advantage the operations of the logging industry is entitled to high standing in the ranks of engineers, but if he would live up to this definition in his work, any means by which the cost of logs may be reduced or the investment of capital be on a better basis, would be worthy of his careful consideration.

One essential of good engineering is that the records of the conditions surrounding any contemplated work or development and all facts and conditions be gathered and preserved in such form as to convey to others a clear knowledge of all matters connected therewith. I mean by this that topographical surveys and cruising should be combined and maps made that will convey to an experienced man a better knowledge and understanding of his work than could be obtained by depending upon his memory and judgments, formed in going through the woods without such aid.

In regard to methods and cost of making topographical surveys and the use of various instruments, much data can be found in various treatises on surveying and in papers and discussions that are available to those interested in and connected with such work, that would be helpful to the engineer who was called upon to make topographical surveys for logging operations.

But the successful engineer in this line must have a broad knowledge of the essentials in methods and costs of the modern system of logging and transportation that he may be able to recognize controlling features and requirements. These features he will develop with care while on other portions he will vary his methods to conform to their relative importance. It remains for the judgment of the engineer to adopt the best method to the case in hand and his ability to do this will depend largely upon his understanding and study of the methods and needs of logging operations in different character of country.

Cost can not help but vary with the character of the country surveyed, the care of developing lines of transportation will be governed by what is beyond that will be tributary, and whether the cost be 15 cents or 50 cents per acre, provided it be judiciously spent, it is probable that the greater the cost the greater the worth of the work.

The writer would say that if errors are to be made let them be made in the way of taking greater pains, for we can more easily become reconciled to a good map that cost 10 cents an acre more, than we can to one where the curtailing of cost by 5 cents an acre has resulted in deficient and unsatisfactory results.

I have said that the engineer when called upon for professional service, should study the methods of, and consult with, the logger.

I would say with equal emphasis, that the logger should consult with the engineer.

No one appreciates more fully than one connected with railroad work the strong and prevalent prejudice of the non-technical or "rule of thumb" man for technical men and methods, and the mutual suspicion that is often entertained between them regarding their methods and work.

While this may act as a spur to each, I would say that the most successful logger will be either a technically trained man or he will find it as much to his advantage to consult the engineer as it will be to the engineer to consult the logger. It is by a proper combination of the work of each that the best results will be obtained.

In summing up, the writer believes that a good topographical map is as desirable and valuable an accompaniment to investment and operation in connection with logging enterprise as a good cruise, and would again emphasize the point that the engineer making a topographical survey and map should first study the needs of the logging operations and should consult freely with the man in the woods, and that the man in the woods should consult as freely with the engineer, that the result may have the value to the business that it should have.

Timber of Lesser Slave Lake Region

D. Roy Cameron, B.A., B.Sc.F., has presented to the forestry branch a report on the timber of the Lesser Slave Lake region. The report, which covers the work of a survey conducted by Mr. Cameron for the branch last year, shows that large tracts of country around Greater Slave Lake are covered with valuable pulp wood.

The poplar type covers an area of about 923,000 acres. The average yield in pulp wood to 4 inches diameter over this area is ap-

proximately 20 cords per acre of aspen and balsam poplar. Of perfectly sound wood, figured on Mr. Cameron's estimate of 7.2 cords to the acre, there are 6,750,000 cords of pulp wood available. Adding defective, but not destroyed wood, at 12.8 cords per acre, which amounts to 11,810,000 cords, the total is 18,560,000 cords.

The report states that the poplar type is in general a temporary type, and the result of fires. At one time or another most of the area was covered with spruce, and is capable of being reforested with that species under capable management.

Turning to the lodge pole pine type, the report states that this covers about 1,900 square miles. On 95 per cent. of the area, comprising some 1,196,000 acres, there can be found at present 5 cords of pulp per acre of pine and spruce. Inasmuch as a great deal of this lumber is a young, growing stand, it may be considered certain that in twenty years' time the yield will increase 100 per cent. Thus by the time this timber is needed for pulp there should be a supply of at least 11,000,000 cords if fire is kept out.

Mr. Cameron submits a scheme of fire protection for the Lesser Slave Lake country, which appears to have been repeatedly swept by fires of great severity.

Two Good Reasons for Burning Slash

For Prevention of Forest Fires and Encouragement of Reproduction—Address before Recent Logging Congress

By F. E. Ames

The favorable attitude of the Forest Service toward slash burning in the coast type of forest can hardly be said to be the result of wide experience. Our cuttings in this type have not been extensive. There seem to me, however, to be two almost unanswerable arguments in favor of slash burning. The first is its desirability as a fire protective measure. Scarcely anyone will deny that old slashings are dangerous and that a successful burn nearly eliminates that danger. The time has really passed when there is much room for argument as to whether slashings shall be burned. In Oregon the law says they shall be, and 90 per cent. of the loggers in the Puget Sound country realize the advisability and advantage of burning slashings. Forest Service timber sale contracts contain provisions requiring the burning of the slash.

The real questions then are as to the methods. Of course getting the trash burned is not the hardest thing about burning slash, it is keeping from setting fire to the surrounding timber. Our contract clauses require the clearing of a fire line from 25 to 35 feet in width about the boundaries of the sale area as logging progresses, and the use of proper precautions in regard to the time and manner of burning. Both the Oregon and Washington fire laws require all snags, stubs, and dead trees over 25 feet in height to be felled if an area is burned over during the closed season. The Forest Service also requires the cutting of all dangerous snags. This is not so expensive as might be supposed, since enough good logs are often obtained to pay for the cutting. Our contract clauses do not specify the season when burning shall be done. This is a less important problem than it used to be because proper safeguards eliminate the dangers of spring burning. Our idea is so far as possible to dispose of summer slashings by fall burning, and of winter slashings by spring burning, thereby reducing to a minimum the accumulation of slash.

The second reason the Forest Service favors burning slash in the coast country is that this clearing of the ground makes conditions more favorable for the reproduction of the most valuable timber tree of this region, the Douglas fir. You all know how thick this species comes in on old burns. This characteristic of the tree is most fortunate since it fits in well with methods of brush disposal required from a protective standpoint.

In the yellow pine country the Service nearly always requires the brush resulting from logging to be piled and burned. The difference in method is due to the smaller amount of slash resulting from logging in pine and to the necessity of using a method which will do as little damage as possible to seed trees and reproduction left on the ground. The danger of fire escaping from burning of brush piles is relatively small if carefully done, and consequently the season at which it is done is less important. Burning can generally follow logging closely. There being no broadcast burn the snags are not so immediately dangerous, but since in any forest fire in that region they are the most difficult factor to control, all dangerous snags are cut.

The cost has been found to be close to 20 cents per thousand for piling and 5 cents per thousand for burning.

In burning brush piles it is a good thing not to set fire to the piles consecutively. Firing perhaps one-third of the piles and waiting until they are burned down before starting another third, decreases the danger of the fire getting too hot or escaping.

It is not necessary to wait until the piles are so dry that they will burn to a bed of ashes. The most inflammable parts of the brush are the needles and fine twigs, and if these are consumed and the coarser parts chunked up enough so that they burn fairly well the burning is satisfactory.

Advantage of the day and time of day should be taken in burning. If the brush is very dry it should be fired on damp days or early in the morning. Each pile should be watched when it is burning most hotly to see that it does not spread.

To sum up: The Forest Service makes a general practice, to which there are, of course, some exceptions, of disposing of its slash by burning, believing that any system by which litter can be removed from the forest without damage to the remaining timber is desirable from a protective standpoint.

The Proposed Freight Advances from Southern States

The advances in freight rates upon lumber from points in the Southern States to points in Ontario and Quebec, which were to become effective on September 1st, have been held over by the railroads upon an order of the Interstate Commerce Commission, resulting from protests filed by St. Louis shippers who would be affected by the change. The situation from the shippers' point of view was very definitely and forcibly presented in the protest referred to, which was in part as follows:

That said defendants are common carriers engaged in the transportation of passengers and property from points in the States of Arkansas, Louisiana, Mississippi, Texas, Georgia, Florida, Ohio, Indiana, Illinois and Missouri, to points in the Dominion of Canada, and as such common carriers are subject to the act to regulate commerce, approved February 4, 1887, and acts since enacted which are amendatory thereof or supplimentary thereto.

That the complainant maintains and operates a general selling office in St. Louis in the State of Missouri, and is interested in mills located in the various Southern States mentioned, and is the shipper of lumber and other forest products from these States to various points in the Dominion of Canada over the lines of the defendants.

That the defendants in their supplements and other tariffs have served notice to the complainants that on and after September 1, 1912, the rates on lumber and other forest products from all Ohio and Mississippi river crossings to points in the Dominion of Canada will be changed—most instances increased 1 cent per hundred, and in some instances increased 7 cents per hundred.

That the defendants, by issuing the supplements mentioned, have exceeded in some cases the rates on lumber and other forest products from Ohio and Mississippi river crossings that are now published in their various issues covering the sixth class rates, and which have always been held and maintained as the maximum rates on lumber; that heretofore the rate from Cairo to Toronto has been 19 cents, and which is the sixth-class rate in the class tariffs. The new supplements, effective September 1st, have exceeded the class rate and are published at 20 cents.

That the defendants, in committee tariff, issued by Eugene Morris, 131B, Supplement 11, I. C. C. No. 281, have printed rates to Canadian points and have indicated them by a character sign as a reduction, while in reality the rates as are published by them are an advance.

That the advanced rates complained of are published in Ill. Central Tar-No. 131-B. Sup., 11 I. C. C. No. 281; M. & O. tariff 7325, I. C .C. No. A-926; Mo. Pac., tariff 616-B, Supplement 5, I C. C. No. 9424; St. Louis Southwestern tariff 5885, Supplement 14, I. C. C. No. 3077; Vicksburg, Shrevport & Pac. 610-B. Supplement 16, I. C. C. No. 2679; Vicksburg, Shreveport & Pac. 610-B, Supplement 12, I. C. C. No. 2630; C. & E. I. tariff 2800-C, Supplement 14, I. C. C. No. 2596.

That the complainants maintain the rates as are shown in the tariffs above referred to are unreasonable, discriminatory and unjust; by reason of the fact that they exceed the present rates now in effect, and that further, the railroad companies in the United States are not complaining as to the revenue, nor neither have they registered a complaint that the rates as carried are not remunerative, but that in view of the attitude assumed by the Canadian lines in regard to the divisions of revenue, the roads in the United States are forced to make this advance in the rates in order to comply with the demands of the Canadian lines, and that tne entire advance is not based with a view of advancing rates, but with a view of adjusting an arbitrary division demanded by the Canadian roads.

New Issue of National Hardwood Inspection Rule Book

Mr. Frank F. Fish, Secretary-Treasurer of the National Hardwood Lumber Association reports that an order for 25,000 copies of the new rules, showing the additions made at the Convention in June, are now in the hands of the printer and will be ready for distribution not later than the 15th of this month. The work of getting these new rules into the hands of the trade has been unavoidably delayed, but all orders now on file will be filled about the 15th and every member will receive ten copies, to which they are entitled.

How to Retain the Buyer's Confidence

By L. H. Murray*

The majority of lumber salesmen have no capital invested in the business. No direct monetary loss is incurred by them should they fail to make a sale, yet few of them receive a salary equal to less than a five per cent. return on a $30,000 investment. This income is their share of the profits from their sales, which depend absolutely upon the good will or confidence reposed in them by their customers. This is the all-valuable asset or investment of the salesman.

Recently a lumber salesman resigned from employer A and entered the employ of B in the same capacity. At present over ninety per cent. of A's former customers in that territory are buying lumber of B through A's former employee. The buyers personally know neither A or B, but they are acquainted with the salesman and have confidence not only in his integrity, but also in his knowledge of grades and conditions at the producing end. Consequently they did not hesitate to give B a trial order. But here is where the salesman's success depends upon the co-operation of his employer. While I have known many instances where a salesman has received a complimentary order, his efforts are futile if the customer learns that his employer has but limited confidence in his ability. One of the most successful lumber salesmen whom I have ever known has made it a rule never to sell lumber for a firm which does not permit him to make adjustments on off-grade or damaged stock whenever an association inspection is not demanded. While this increases his responsibility, it strengthens his prestige with his customers.

One overt act on the part of a salesman may ruin forever his prospects of selling a customer. Conversely he may as quickly win the dealer's unbounded confidence. Only yesterday a big buyer told me that he will never place another order with S—, for while that salesman was in his office, he was called away for a few minutes, and upon his return he discovered S— perusing his order record. S—'s lumber is as good as it ever was, but he has lost the dealer's confidence. A young salesman once entered a dealer's office and was very anxious to sell No. 3 yellow pine boards. His firm was overstocked on the grade and this particular buyer was in the market for cheap sheathing, but was undecided whether to buy No. 2 merchantable hemlock or No. 3 yellow pine. The dealer finally asked, "Have you seen these boards?" The salesman replied that he had. The retailer then showed him the No. 2 merchantable he was using and asked, "Are your boards as good as these?" The new salesman told him they were not. The sale was lost, but the dealer now places the majority of his yellow pine orders with that salesman.

Evolution

It has been said that the evolution of a traveling man has been "bummer, drummer, and traveling salesman." A certain lumber dealer in my territory is addicted to the use of liquor, and frequently invites salesmen to accompany him to a nearby saloon to have a drink. Several months ago I was at a hotel with four other lumber salesmen when one of those present asked another if he sold this particular dealer. The latter replied that he did. The former and older man asked, "Has he ever asked you to take a drink?" The reply was, "No." The old salesman said, "Well, believe me, if you ever refuse to drink with him you will never sell him again," It so happened that the very next time the young salesman called on that dealer he was asked to accompany him and his yard foreman to the saloon, He did so and paid for the drinks, but ordered a cigar for himself. Replying to the customer's inquiry he explained that he did not drink. They returned to the lumberyard, where the salesman received orders for two cars of "uppers." The dealer said, "I have asked many other salesmen who do not drink to go over there with me, and they have always ordered a drink and thrown it in the cuspidor when they thought I did not see them, and by —— you are the first one who has had sand enough to tell me that you are on the water wagon." It was not the fact that this particular salesman did not drink that won the dealer's confidence, but simply because the principles were not for sale.

Many salesmen have made the mistake of changing employers too frequently. A $25 a month advance is very tempting to the majority of us, yet a few changes even at an advance in salary may place us beyond our earning capacity in the dull season, and shake the confidence of the dealer. The customer, in addition to changing the source of his lumber, which must be done if he sticks with the salesman, will soon question whether the salesman's present employer is as reliable as some one of the former; or he is prone to think the changes were not made voluntarily. While talking with me concerning another salesman, a dealer once said, "When he enters my office I always ask him, 'For whom are you now selling?'" There was an implied meaning in the statement which showed the salesman was losing his hold on that customer.

Our greatest asset, which is the retention of the buyer's confidence, is as unstable as the capital invested by our employers. We must guard it as carefully as he does his money, for money once lost may be regained, but confidence never. A friend of mine who worked his way through college by breaking colts told me if a horse kicked at him, no matter how gentle he afterwards became, he never went near that horse without thinking of the time he kicked.

It is a mistaken idea for the salesman to assume that he can gain the confidence of the dealer by giving him an advantage in an adjustment of grade or on a settlement of a complaint. While he may show some appreciation for such an act, he has more respect for the man who has the backbone to stand up for his employer. A young man who had been a grader in a mill started on the road as a salesman in my territory. He was advised by many older salesmen not to call on the S— Lumber Company for S— was a kicker and a scrapper. Contrary to their advice he called on S— and sold him. Upon his third call he sold the company a car of B and better finish. In a few weeks he received a wire from his house advising that S— had complained of their finish. He went to S—'s yard and found that 4,500 feet of the stock was a select grade. The difference in price between the two grades was $6 a thousand or $27 in all. S— demanded a reduction of $40 on the car. "If you were my own father," said the salesman, "and my firm was my bitterest enemy, I would recommend a reduction of $30 in settlement, for you use a select grade as well as a B and better, and I do not think the extra handling would cost over $3." S— was so thoroughly convinced of the salesman's sincerity he accepted the proposed settlement and became one of the salesman's best customers.

All of these illustrations are unembellished facts which I have observed in a few years on the road, and which I know to be absolutely true. We may have codes of ethics, instructions for salesmen and books on salesmanship, but the fundamental requisites necessary to secure and retain the confidence of the dealer are ability, hard work and the qualifications of a perfect gentleman.

* The above article was one of the prize winners in the recent competition conducted by the American Lumberman.

Profitable Use of the "Off" Season

Among retailers of lumber quite generally there is a tendency during the "off season" to restrict purchasing of stocks to the lowest possible limit, and the "hand-to-mouth" policy becomes the rule, says a writer in the Lumber World Review. At such times the manufacturers' salesmen are not so omnipresent as in the busy season, for they are reluctant to "get out and hustle" when the yard men are not in a receptive mood. The midsummer dullness has for many years been a great drawback to the business, and the dealers in the rural communities have fallen into the habit of relaxing effort and vigilance and accepting as a matter of course the stagnation of the mid-year period.

While the retailer can not expect people to come to him for lumber when they do not need it, or are too busy with crops or other work to do any repairing or building, he can employ the spare time advantageously by dropping in on his neighbors and sizing up the prospect for fall business.

If the dealer is not fully posted on the market situation it will pay him to watch closely the columns of his lumber paper—without which, of course, he can not expect to get along in business—and he should not fail to keep in close touch with the secretary of his association—without which also a retail tradesman certainly is at a disadvantage—and through every means available keep informed on current conditions. By so doing he will prepare himself for the fall season and possibly he may see an opportunity to avail himself of price recessions that will induce him to buy in advance of the coming demand. In this way he can profit by the spare time of the dull season and forestall any disadvantage which might occur later, such as car shortage or dearth of supplies at the sawmills.

Salesmen in the Summer

As it is with the retail lumber dealers, so it is with the manufacturers' salesmen in the summer season. The time drags very slowly where commissions are at stake and, with the retailers, they have to play the "waiting game" until the fall revival of trade. But they also have means of putting in the time profitably during the dull days. While many of them prefer the shade and the siesta, there are those who are "Jack-at-the-wheel" all the time. They keep track of trade, blow hot or blow cold. They paddle in sweat or revel in shivers. While the fellows who are luxuriously inclined are dallying with mint juleps on the front stoops of country club houses, these Jackies are poring over stock sheets or happening in on some new find in the yard business. This allusion is not intended to cast any reflection on the taste or intelligence of the fellows who prefer the juleps—not in a thousand—but it is intended to illustrate a fact, which is, that to the retail lumberman and the lumber salesmen the "off season" for trade may not be altogether a period of business stagnation.

The Best Time to Buy

To the lay mind it would appear that the quiet period in the lumber trade is the best time to lay in stocks, and not without rea-

son, as all conditions then usually are more advantageous for the purchase and shipment of lumber. The present season so far has been corroborative of this assertion, yet the yards of nearly all sections of the country have, according to general report, adhered to their habit of holding off for the beginning of fall demand. From many points come the reports that stocks are low and badly broken; and many of them are liable to remain so if the current prediction of car shortage are fulfilled.

A Fastidious Yard Owner

Order being nature's first law, it is most commendable in all walks of life, and particularly in those where there are many things to keep in order. A lumber yard? Yes, that's one of them. A good sized retail lumber yard presents as many opportunities for the exercise of a sense of order, almost, as a library or a 10-cent store. Where there are two or three hustlers to look after, a yard man has plenty to do on his hands to keep things picked up, and laid straight, especially when business is brisk and there is a large variety of stocks in the sheds.

One of the most finnicky men ever heard of, about order in his yard, was a dealer in an eastern city who handled about everything that ever entered into the make-up of a lumber yard, and a number of things besides. He employed five or six men—selected for their abnormally large bumps of order—who were constantly on dress parade, and it was "Careful, Jeremiah, watch your sticks; keep them straight. There, James, brush off the sawdust from that board. You are very careless to load lumber in that condition," and so on. He was as careful of his boards as he was of his clothes, and they were always "spick and span." As the aforementioned Jeremiah once remarked, "Be gorry! It's a great pain in me face I have from blowin' the' dust off av th' lumber. Next thing we know that jood boss av ours will be after makin' us use feather dusters on it, bad scran to him!"

The office of this man's yard was as neat and tidy as a lady's boudoir, and it was with fear and trembling that any one of the yard hands approached its outer portal. Once a careless or forgetful employee expectorated tobacco juice on the walk just outside the office door, and the lecture on the evil of uncleanliness that he was compelled to listen to, gave him such a jolt that he bolted his "cud" and, like Bill Nye's dog, "Entomology," went outside and regretted it.

This dealer stood high in the community, however, and was widely known for his clean business dealings as well as for his clean stocks. He was as careful of his business reputation as he was of the appearance of his office and sheds, and although his men called him finnicky, they freely accorded him the respect to which he was entitled.

When Trucking Lumber In

If, when stock is brought in from the yards to planing machines, it is piled on the trucks with regard to being fed into the planer the right way, it saves time at the machine and insures smoother stock, with fewer boards run against the grain, says the Wood-Worker. This sounds like going to some trouble in the yard to save the planer man having to watch the run of the grain and having to turn some boards. It is trouble, though, that is being demanded by the fast-feed machines, because the operator has no time to look or turn boards—they must be turned the right way on the truck when brought to the machine. And it is really the right thing to do, anyway. The place to begin using brains is right when you start to get lumber out of the piles and bring it in for work, and the man with sense enough to select the lumber that is needed also has the sense to turn it the right way for feeding through the planer while he is at it. It is merely a matter of paying attention. We have reached the point in efficiency where attention is one of the essentials at every step in the work, from the time a board starts from the pile till it is shipped out as part of the finished article.

English Demand for Hickory

United States Consul H. L. Washington, Liverpool, Eng., in a recent report says:—"It appears that there is a constant and fair demand for good quality hickory, and three Liverpool firms that were interviewed have expressed a willingness to communicate with American exporters. Their names and addresses are on file in the Bureau of Manufactures. The two firms first mentioned in the list use both hickory lumber and hickory dimension stock. The third firm up to the present time has used hickory lumber only, but states that if it can be assured that the sizes of the dimension stock when ordered will be sawn exact to a small degree, and not varying, say, one-sixteenth to one-eighth of an inch either way, it will consider taking up that part of the business. All three concerns supply wheelwrights and other trades with required pieces after bending into the shape desired.

"It is very difficult to arrive at an average price owing to the varying quality of the wood. Some idea, however, may be obtained from quoting the following: 'Hickory lumber 42 to 60 cents, dimension stock about 73 cents per cubic foot.'"

Personal Brevities

Mr. A. D. McRae, of the Canadian Western Lumber Company, has been gazetted honorary colonel of the Sixth regiment of the Duke of Connaught's Own Rifles, in Vancouver.

Mr. G. Skiff Grimmer, of the U. of N. B. class of 1908, is engineer and forester for the American Canning Company, near St. Andrews, N.B. The company has a considerable tract of timber and will grow timber for box shooks.

R. G. Lewis, B.Sc.F., who has been for some time engaged in the compilation of the forest product bulletins for 1911 at the head office of the Forestry Branch at Ottawa, is leaving shortly for the Maritime Provinces in connection with a study of the wood-using industries there, on which the branch is entering.

Mr. John A. Potts who for a number of years occupied the position of Superintendent of the Dalhousie Lumber Co., at Dalhousie, N.B., has accepted a position as Manager of the Maritime Lumber Company's mill at Sherbrooke, N.S. Mr. Potts has been for 9 years in Canada, having come originally from Newcastle-on-Tyne. Since his arrival in Canada he has been employed continually by the Dalhousie Lumber Co. In the old country Mr. Potts was in the service of John Herring & Co., a well known lumber importing firm.

Mill Waste for Pulp

The United States Government Forest Service in a recent canvass of some of the large sawmills of the country established the interesting fact that mills with an aggregate cut of 5,440,000,000 board feet had a final waste of 1,870,000 cords of slabs after the best had been used for lath in the many mills. A little less than half was used for fuel at an average price of $1.40 a cord. A little more than one-fourth was burned in the waste burner or slab pile, and about one-fourth used for fuel under the boilers. Assuming these mills to be representative, the slab residue from the entire lumber cut of the country would amount to about 14,000,000 cords, of which 6,000,000 are sold for fuel, 3,500,000 used by the mills for fuel, and 4,500,000 burned in waste burners. When we recall that we use about 4,000,000 cords of pulp wood, says the Bangor News (and one-quarter of this is imported), and that the exhaustion of our pulp wood forests is a live question, it is seen that this cheap slabwood refuse, with the large item of sawdust refuse added, makes an inviting field for the inventor. The iron furnace slab heaps are being seized upon by the brick maker, the screening dump of the coal mines is being worked over by the briquette maker; will it not soon be the custom for the pulp maker to draw his wood supply from the slab and sawdust pile?

American Lumber in the Prairie Provinces

American competition in the export fields, even with its pronounced effect upon the business of British Columbia, has been given less publicity than the heavy exports made from the United States to the prairie provinces, says the Lumber World Review. American lumber has apparently found a profitable market there, the exports from the State of Washington to Canada during 1911 increasing about 7,000,000 feet.

The explanation of the American advantage, according to the American consul, appears to be that the Washington mills sell cheaper than local concerns. The writer is reliably informed that a number of British Columbia mills could have sold a great deal of lumber on the prairies at a lower price than the American mills, shutting the latter out, and made larger profits, if they had been willing to do so. The Canadian mills have the advantage of both a lower freight rate and no customs duty. On finished lumber, for instance, quoted at $35 on the prairie, the American manufacturer receives net about $21, having to pay $8 freight and $6 duty. The Canadian mill would receive $28 selling at the same price, its freight rate being $1 less.

The Schimmel Line of Belt Sanders

Schimmel, Reid & Company, Faribault, Minnesota, have issued an attractive catalogue of their Spiral Belt Sanders, Simplex Belt Sanders, Utility Belt Sanders and Spiral Contact Device. The Schimmel line of belt sanders includes four styles of machines—the Standard and Suspended models of the Spiral Sander, both capable of producing the highest quality of uniform surfacing, the Simplex Hand Block machine, and the Utility small surface sander. The spiral contact device is an attachment for fitting on any other make of belt sanding machine to obtain greater efficiency. The Spiral Sander is a great saver of time, labor, material and power. The catalogue is attractively prepared and would be of benefit to all wood-workers. Readers interested in this line will be promoting their own interests by writing to the above company for a copy of this interesting publication, and mentioning the Canadian Lumberman & Woodworker.

WANTED & FOR SALE DEPARTMENT

PUBLISHERS' NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

WANTED—LUMBER, ETC.

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

Lumber Wanted

Several cars of good 1-inch No. 3 Common Hardwood, Birch preferred. State quantity, average width, and best price. Box 578, Canada Lumberman, Toronto, Ont. 18-21-5

Slabs and Cord Wood Wanted

Am open to buy any quantity up to 10,000 cords hard and soft wood slabs and cordwood. Write me. Horace Hartley, 19 ayor Street, Montreal. 15-19

Lumber Wanted

White Pine and Basswood Slabs wanted; from this season's cut; must be bright and of good thickness. Write stating how many cords you have, what you want for it on cars your station, and how much is ready to ship now. The Wm. Cane & Sons Co., Ltd., Newmarket, Ont., Canada. 17-19

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4½ in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

FOR SALE—LUMBER, ETC.

For Sale

100 M. ft. 2-in. Cull Spruce. 300 M. ft. 1-in. Cull Spruce. 15 M. ft. 1¼-in. M. C. White Pine. 50 M. ft. 2-in. M. C. White Pine. Fred T. Smith, 310 Board of Trade Bldg., Montreal, Que. 1.t.f.

For Sale

25,000 ft. 2-inch Rock Elm.
40,000 ft. 1½-inch Rock Elm.
All No. 2 Common and Better.
Can ship promptly.

J. H. DIRSTEIN,
17-18 Elmwood, Ont.

Lumber For Sale

4 cars 1-in. good cedar for boat building.
100,000 ft. 2 x 6 mill run hemlock.
100,000 ft. 2 x 8 mill run hemlock.
4 cars 2-in. white oak, sound and square edge. Apply to Geo. C. Goodfellow.
C Montreal, Que.

For Sale

For quick shipment, 800,000 ft. Birch. All grades and thicknesses.
200,000 ft. Soft Elm M. R. All thicknesses.
100,000 ft. Basswood M. R. inch.
100,000 ft. Maple. All grades and thicknesses.
Send us enquiries. The Meaford Lumber Company. 7-20

For Sale

For quick shipment, 100 M. ft. 2-in. Birch, December, 1911, cut. No. 2 C. & B. at $20 per M. on cars. Farm Point, Que. Hall Bros., 174 Mutual Street, Toronto, Ont. 16t.f.

FOR SALE—MACHINERY, ETC.

For Sale

Large three band sawmill complete, blacksmith shop, docks and trams, located at Ford River, Mich. Will sell at a bargain. Address I. Stephenson Co., Trustees, Wells, Mich. 17-19

Machinery For Sale

A Waterous No. 4 Band Saw Mill, with Carriage Saws, Live Rolls, and complete Filing Room equipment, also several Good Woodworking Machines, in splendid condition.

J. S. FINDLAY,
2-TF Owen Sound, Ont.

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 70 H. P. boiler, 60 H.P. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water.

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

Machinery For Sale

Carver, 4 spindle, Rohlman.
Cut-off saw, railway.
Dovetailer, Boults.
Engines and boilers.
Jointer, chair seat, Jenkins.
Moulder, two side, 6-in. Smith.
Moulder, three side, 6-in. Smith.
Moulder, four side, 6-in. Houston.
Moulder, four side, 9-in. Fay.
Moulder, four side, 12-in. Woods, inside.
Mortiser, Smith.
Mortiser, Bit.
Planer, 2-in. Gem.
Planer and matcher, 9 in. x 6 in. Berlin.
Resaw, band, American, 48-in. wheel.
Resaw, 42-in. circular.
Ripsaw, band, 42-in. wheel.
Sander, 24-in. Perry, power, two drums.
Saw gummer, Rogers.
Sawmill, band, 63-in. wheel, carriage, 18 ft.
Shaper, home made, wood frame, two spindle.
Shaper, iron frame, wood table, two spindle, light.
Shaper, iron frame, wood table, two spindle, heavy.
Swing saws, 6 ft.

O. L. Packard Machinery Co.,
Milwaukee, Wis.

WANTED—EMPLOYMENT

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

Situation wanted, as office or general man. Sixteen years' experience in lumber. Good references. Box 561, Canada Lumberman, Toronto, Ont. 17-18

WANTED—Position by young man as sawmill office manager or shipper. Ten years' experience with largest hemlock concern in East. References A.1. Address Box 560, Canada Lumberman & Woodworker, Toronto, Ont. 17-20

Advertiser, who knows his business, wants position as Superintendent or Manager with a live lumber concern operating in Ontario or Quebec, where he can obtain an interest. Have best of references. Box 572, Canada Lumberman, Toronto, Ont. 18-3

Manager and Salesman

Would like to correspond with large first class Hardwood Manufacturers unrepresented in New York territory, who would open office here. Years of experience in all lines of hardwood trade. Well known and draw large business. Employed now and could hold open for 1913. Married; good salary wanted. Box 571, Canada Lumberman, Toronto, Ont. 18-8

Thoroughly experienced office man, Canadian, age thirty-four, married. Expert bookkeeper and cost accountant, sawmill, wholesale and box factory. Experienced selling yellow pine; also seven years experience white pine, United States and Canada. Desire change to healthy location with good schools. Prefer position as assistant manager or office manager. Haven't lost a day in thirteen years. Reply, Box 584, Canada Lumberman, Toronto, Ont. 18-10

WANTED—EMPLOYEES

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

A Band Resaw Filer to take care of a 5-in. Resaw machine. Reply, Edouard Ruel, Lauzon, Levis, Que. 18-9

WANTED—Salesman with some knowledge of measuring and inspecting lumber, age from twenty-five to thirty-five years. Apply Box 568, Canada Lumberman, Toronto, Ont. 18-21-2

Wanted

A first-class man to take charge of a well equipped Planing Mill, and Sash and Door Factory. Only a man capable of estimating and drafting need apply. References will be required. First-class salary to right man. Reply to Box 497, Renfrew, Ont. 17-19

WANTED—Good man with experience in bush work to take position as supervisor over a number of camps. Must be perfectly sober, active and have a general knowledge of timber and bush work. Apply with references, Box 567, Canada Lumberman, Toronto, Ont. 18-1

WANTED — Well experienced foreman, thoroughly posted in manufacturing of Hardwood Flooring can get immediate position at mill running whole year. Apply to Hardwood Planing Mills, Head of Tide, N. B., giving particulars of former employment and references. 18-6

Reporter

We want an energetic representative in each town in Canada to report on building and engineering work—to tell us where machinery, equipment, supplies or materials may be sold. Reports are paid for on the per item basis. It depends upon your own efforts how much you make. This is a profitable side line and there is good money in it for a hustler. Write to MacLean Daily Reports Limited, 220 King Street West, Toronto.

BUSINESS OPPORTUNITIES

For Sale

Timber limit, comprising 18 sq. miles, containing 25,000,000 feet mixed timber. Apply Geo. S. Nesbitt, Rupert, Que. 16-19

For Sale

Established Lumber Business, with first-class mill, now running full time. Timber limits with 20 to 30 million feet of standing pine timber conveniently located, and all merchandise, etc. Price $55,000. This is worthy of investigation. Address Box 332, Canada Lumberman, Toronto, Ont. 19-22-t.f.

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest, if your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf.

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 115 h.p. boiler, 100 h.p. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water.

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

WANTED—To hear from Box Mills in position to furnish boxes in car loads. Apply to Geo. B. Breon, Williamsport, Pa. 17-20

Advertiser wants to purchase small timber limit having at least ten million, sawmill, etc., or will consider half interest. Answer Box 573, Canada Lumberman, Toronto, Ont. 18-4

For Sale — Sawmill with Capacity

Of one hundred thousand feet per day. Located in Everett, Wash. Good rail and water shipping facilities. Ten and one-half acres of land with excellent mill pond. Price less than one-third of appraised valuation. 15-18

Address, P. GARDINER, Everett, Wash.

FOR SALE—A farm, sawmill and timbered lands, also a quantity of choice clear soft pine plank sidings. Apply to Hugh Cameron, Canonto P. O., Ont. 17-18

Timber For Sale

Tenders will be received up to and including the first day of October, 1912, for the right to cut white and red pine and spruce, on two timber berths on the upper waters of the Jocko River east of the townships of Garrow and Lockhart, in the District of Nipissing, Province of Ontario, the berths being designated "Jocko No. 1" and "Jocko No. 2," each containing twenty-five square miles more or less.

For maps and conditions of sale apply to the undersigned.

W. H. HEARST,
Minister of Lands, Forests and Mines.
Toronto, July 17th, 1912. 15-18

Important Sale of Valuable Timber Limits

Sealed tenders will be received by the undersigned up to and including the **20th day of December, 1912**, for the purchase of:

Limit No. 194 of 1873-74—River Jean de Terre—tributary to the Gatineau, containing an area of fifty (50) square miles, more or less.

Limit No. 195 of 1873-74—River Jean de Terre—tributary to the Gatineau—Island Lake, containing an area of fifty (50) square miles, more or less.

These limits comprise some of the best pine and pulpwood areas in the Province of Quebec.

Map showing location of these timber limits and report thereon may be inspected at the offices of the undersigned and from whom further information may be obtained.

The highest or any tender not necessarily accepted, and the acceptance of any tender will be subject to the approval of the Court.

The Toronto General Trusts Corporation,
30 Sigin Street, Ottawa, Ont.
or
Messrs. Aylen & Duclos, Barristers,
Castle Building, Ottawa, Ont.
or
Messrs. Belcourt & Ritchie, Barristers,
Castle Building, Ottawa, Ont.

Dated Ottawa, August 5th, 1912. 16-20

Adjustment of Band Saw Guides

The construction and adjustment of saw guides as the blade enters and leaves the cut are very important factors in the successful working of all kinds of band saws. In referring to vertical log band saws, Baldwin remarks in this connection that the guides for supporting the saw blade must

be properly fitted and adjusted, and the column carrying the upper guides must stand exactly parallel with the saw blades. While the guides are a necessary adjunct to the mill, yet the saw should run practically independent of the guides. The back guide should never be used except as a measure of safety. If the column carrying the upper guide be not nicely aligned the saw will come in contact with the upper guide either on wide or narrow timber, as the case may be.

The saw must not vibrate against the guides. Keep the wheels perfectly aligned; the crosshead carefully adjusted to see that it is free to move up and down, and thus retain an even strain on the blade, the feed rolls aligned with the saw blade, and the whole machine examined to see that all parts are nicely in balance to avoid all tremble or vibration. Having the above points attended to, if the saw fails to do good work it will be found that it is not perfectly tensioned or perfectly fitted, and the fault of this is chargeable either to a lack of a good filing room equipment or to a lack of skill in its use on the part of the filer.

Set the guides so that you can see a fair light between them and the saw. The closeness of the guides to saw must depend somewhat on the fineness of the tension. If the saw is perfectly levelled it will run on a narrower opening of guides than if it contains lumps, twists, etc. Guides are variously made of steel, hardened babbitt, wood, etc. Steel or babbitt guides are most commonly used. Wood guides are open to several objections—that if water is used on saw they are not reliable, and they are more liable to heat the saw. If the guides are set too close the laps in the band saw may strike against them and cause a crack to start at this point. It is well to dress lap a trifle thinner than the regular gauge of saw.

In adjusting guides, slack off all four guides from the saw. Next set the lower log side guide up to the saw, put in a sheet of writing paper between the guide and saw, and screw up guide until the paper will not fall out, but not so hard as to move the saw out of line. Fasten the guide firmly, and then put in another piece of paper between saw and the board side guide and push the guide hard up and fasten firmly, and if right the paper will pull out tight and will leave a perfectly guided saw without too much or too little clearance. Set the top guide the same way, but be careful not to move the saw out of line when setting the guides. If a band saw is hammered and fitted right and the mill and guides are properly lined, the saw will stand a good feed and cut straight timber.

Piano Case Woods

Piano manufacturers in the United States are using chestnut in increasing volume, specifically for the ends of piano cases. Two-inch chestnut is used and then veneered. They have come to chestnut for two reasons; because it is fairly readily obtainable while hard maple has become scarce, and because it has been found that chestnut takes glue very well.

Furniture manufacturers are using higher class veneers than ever before. They have found that it is best to spend a little more money to get good figure. While pianos are supposed to be bought for their tone nevertheless the appearance of the case has much to do with the sale. The piano usually is the most conspicuous object in any room in which it is placed, and its appearance, therefore, is also a prime consideration. People inexperienced in piano quality are often good judges of looks and the appearance of the case becomes the argument that clinches the sale.

Circassian walnut has become a new factor in piano case manufacture. It may not have replaced anything, but it has become extremely popular, and in consequence a large number of Circassian walnut cases are being made and sold.

Using Water on Machine Saws

There is something materially wrong with the saw that needs water while at work. Water is a very objectionable liquid or substitute to use about saws and machinery; besides its tendency to damage the timber being cut, it also rusts up the benches and the saws, therefore it should be strictly avoided or abandoned. To free the teeth of gum or resin three drops of turpentine or paraffin are of more use than three gallons of water. Some operators use water to prevent the heating of saws while at work; also that they may regain their nomal. Where such makeshift methods are prectised it simply indicates the defective condition of the tools, and a deplorable lack of efficiency on the part of the saw trimmer."

Ties Scarce in Australia

The state of New South Wales, Australia, through its Department of Works recently issued a requisition for a large supply of railway ties to be used in connection with an extension of the railroad line between Wagga and Tumbarumba. Over seventy thousand ties wil be required, and in spite of the fact that this has been given wide publicity, no offer has as yet been received to supply them.

This would seemingly indicate that the local supply of hardwood is getting low. Hardwood ties running into the hundreds of thousands have annually been exported from New South Wales to other states, and the question of where to secure a sufficient quantity to meet local demand is puzzling the officials. This condition prevails in spite of the fact that reforestation and conservative cutting are thoroughly carried on in the state. The lack of bids on the tie order seems more surprising in view of the fact that the line is owned and operated by the state government.

Ripping with Band or Circular Saws

At the present moment all over the world there seems to be a keen rivalry between the band saw and the circular for both log conversion and re-sawing, and probably this keen competition for supremacy will ultimately terminate in a complete transition of change in current methods of sawing, inasmuch that the band saw will "come out on top" and displace the circular, says the Timber Trades Journal. Of course, it must be admitted that circular saws as a rule give a smoother surface to the wood, but the many other disadvantages embodied in this tool compared with the band makes it the inferior tool. Band saw enthusiasts claim that it is immensely superior economically and in many other respects to the circular saw. The remark that band saws can be fed faster than the circular saw (up to 300 ft. per minute) is not correct. For ordinary re-sawing from 1 in. up to 8 in. the circular saw can be fed as fast as any band saw can, but that either could be fed at the enormous or absurd rate of 300 ft. per minute is preposterous. No saw should be subjected to the half of this feed speed, even when the stuff does not exceed 2 in. deep.

A Sash and Blind Wrinkle

Probably some of you millmen have noticed long ago that the manufacture of blinds is not what it used to be. Especially is this true of the smaller cities and towns where nowadays you hardly ever see a house erected that is equipped with outside blinds.

Recently while in a neighboring city, I had occasion to visit an old carpenter, who, having had blinds on his windows, had removed the slats and cut a rabbet 5-8 inch wide and 3-8 inch deep in the frame of the blind. In winter time he puts glass in these blind frames, they making a good outside window, protecting the house from cold and keeping the windows from freezing.

In the warm weather season he removes the glass and buts back his slats, which he has fitted in a frame to fit the rabbet he cut in the blind frames.

Thus in an instant he can change from blinds to outside windows or windows to blinds.

Wouldn't this be a good idea for some sash and blind manufacturer to adopt? Given a good trial, it would surely prove to become popular.

Job Tracing

There are several different practical and workable plans for keeping track of the cost of jobs in a planing mill, even down to every detail, says The Wood-Worker, of Indianapolis. But there is another bit of information that none of them cover in a satisfactory manner. That is, information about where and in what shape any given job is in. Here is the proprietor of a big, busy mill, who puts in much of his time on the outside getting business. He likes to know what shape his work is in, when this job will be through, and how that one is getting along. His business is too big for him to walk out and get an idea by looking through the mill. What he wuld like to have is some comprehensive system of job-tracing and record-keeping, so that when he comes in at night he can glance at a certain record and tell just where his work is at and how each job is coming along. That is much more difficult than cost-keeping. If you are skeptical, just try your hand at it.

The Planer Set-Dial

Practically every planing machine is provided with a set-dial and a pointer, supposed to show in more or less detail just what thickness of stock the machine is set to cut at any time, says the Wood-Worker, of Indianapolis. But practically all that many of these are used to show is the difference between the inches. In other words, they do not enter into serious consideration when it comes to getting down to the exact thickness of stock going through the machine; a rule or gauge is used for this, and applied directly to the material after it gets through the machine. It is a sort of cut-and-try process that really should not belong in the present order of machine work. It is easy enough to make dials and pointers as a part of machines that will show measurements as accurately as on a hand rule. There are some on sanders that show much finer graduations than the average pocket rule. Making them is not the trouble, though. The weak spot about them comes in the fact that the knives may not be set to cut the same depth each time. But isn't it time for us to get after that very matter with the new order of knife-setting, and get a positiveness that will make the dial on the front of a planer just as reliable as a gauge, in the matter of thickness? It would certainly save time, and it would make the planer dial a really useful part of the machine and not a mere joke —as many of them are to-day.

Review of Current Trade Conditions

Ontario

The delivery of B. C. shingles is becoming more difficult every day not only owing to the scarcity of labor, but also more particularly on account of the shortage of cars for transportation, and the situation is rapidly becoming acute. Owing to these conditions many firms are refusing contracts, and dealers who anticipate using shingles will be wise to place their orders at an early date so as to ensure their being filled.

Hemlock stocks in shorter lengths, such as 12 ft. and 14 ft. are scarce and will probably continue so until the production of another season's cut. There is still a fair supply of lath although a shortage may no doubt be looked for a little later on. The quantity of pine continues good except in mill culls and dead culls.

Boxmakers are complaining bitterly of the price of box lumber (mill culls), and they are looking out for substitutes. It is not impossible that the conditions of 1907 may repeat themselves. The hardwood trade is fair and quite steady and the American trade is now making enquiries for stock. Viewed generally, trade in Ontario is, and has been, remarkably good during the summer months, which is quite an unusual state of affairs. Prices generally are unchanged.

Manufacturers, wholesalers and jobbers continue to report that conditions governing the paper trade at Ottawa, were never more favorable. Owing to continued rainfall, the extent of which was unprecedented for the month of August, there is ample power available. The river is higher than it has been for years at this season. The demand in all lines continues heavy, news print finding a particularly ready market. There has been no movement in prices.

Reports from Western Ontario tell of considerable sharp advances in piece stuff both in Norway and hemlock. There is a very sharp demand for both of these classes of lumber and a shortage in the market, and scarcely any dry stock to be offered at the present time.

Eastern Canada

The lumber business at Montreal continues on an active basis. Trade, in fact, was never better, according to reports from the wholesalers. This applies to every branch of the business. There is a scarcity of dry stocks and the new cut is slow in appearing. All descriptions of spruce are firm at the recent advances. Lath are scarce and stocks of dry lath at the mills have practically disappeared. Shingles are somewhat higher. The car shortage is commencing to make itself more noticeable, although there is not as yet any serious shortage compared with what is feared in the near future. Shipments to Great Britain continue in satisfactory quantities and prices are firm. There are plenty of canal boats for the New York trade. The pulp and paper trade is also on a satisfactory basis, news print mills having a little more business than they can handle. The demand for sulphite fibre is strong and likely to continue so. The Canadian consumption of ground wood is heavy, although the shipments to United States show an extensive decrease. It is expected that a shortage of ground-wood will develop when the Fall demand appears.

Boston reports show that the demand for shingles and for some of the coarser varieties of lumber have advanced quite noticeably of late. The market in general shows a rather stiffer tendency, and the outlook for Fall trade is most promising. The demand for Canadian lumber is strong and stocks are pretty well sold ahead.

A fair volume of business is reported in Eastern spruce at Boston. Some wholesalers report that they expect better prices during September than they have been receiving. Frames are selling at $24.50 and some retailers claim to be purchasing them at $24.25. On the other hand some manufacturers are holding out for $25.00. Random is rather more quiet than formerly. The price of 2 x 4 is from $22 to $22.50. Spruce covering boards are about steady, selling at $21.50 for 5-in. and up, wide, 8 ft. and up, long. Most holders however, will accept $21. The hardwood market at Boston is rather quiet. Plain oak is in good demand and firmly held. Stocks are rather light. There has been a better demand for quartered oak although offerings are rather smaller than formerly. Shingles are firm at Boston and some manufacturers are edging the prices up a little bit. One brand of the best cedar extras is held at $4.25 and another good brand is quoted at $4.10. Extras are quoted at $3.90 to $4 and clears at $3.60 to $3.75. An upward tendency is reported in the market for lath. The asking price for 1⅝ is $4.15 to $4.25 and for 1½-in. the price runs from $3.75 to $3.85. At New York the demand for eastern spruce continues active and prices are unchanged. The price situation is strong and very little surplus stock is offered at mill points. The demand for all kinds of hardwoods at New York continues active. Plain and quartered oak are strong. Thin maple and birch are in good demand and wide and thick stock are also selling well, although offerings are scarce.

Great Britain

The improvement in the trade in wood goods at London which has been noticeable of late is still well maintained and even shows signs of increasing. Many buyers who were holding off, have commenced to realize that the higher level of prices resulting from increased freight rates will not be reduced during the present season. Accordingly they are now coming on the market for supplies for future requirements. Deliveries at London docks for the week ending September 24th amounted to 7732 standards as compared with 6348 standards during the corresponding week of last year. At Churchill and Sim's recent auction sale, 3 x 7, 2nd Quebec spruce was sold at £10 5s. per standard for a lot of 13 foot stock. A lot of dry clear face red pine from Montreal, in 12 to 16 foot lengths was sold at £12 10s. per standard for 1 x 8 and £14 for 1 x 7. Third quality red pine from Montreal brought £10 15s. for 2 x 9, 18 foot. Some prime dry Quebec birch, 4 x 4/9, 7/17 ft. was sold at 1s. 4d. per cubic foot. Another lot of 3 x 7/13, 6/16 was sold for 1s. 10d., and 3 x 7/15, 7/16 ft. brought 1s. 3d.

The soft wood trade at Liverpool continues on a steady basis without any alterations worth of note. There are indications however, that consumers in country districts are commencing to understand that they must pay higher prices to cover the increased cost of importation. The spruce deal market shows no change and it is still an extremely difficult matter to secure freight from St. John and other ports in the New Brunswick and Nova Scotia districts. Stocks in the Maritime Provinces are reported to be low and holders are not eager sellers. These facts and the approaching close of the season which will affect the cost of marine insurance all point to an advance in the price of spruce deals. Canadian pine deals at Liverpool are quiet. Consumers continue reluctant when it somes to paying the prices required by importers. Consumers in fact seem to be paying no attention whatever to the fact that the cost of getting out pine deals is continually increasing.

At Manchester the volume of trade in the lumber business is steady and shows signs of continuing so without decrease for some months. Prices in general have an upward tendency. Spruce has apparently reached its lowest value for the year and prices of yarded stocks are reported to have been advanced. Further advances are expected in the near future.

A slight improvement in the trade situation is reported from Bristol and it is hoped that during the last few months of the year some amends will be made for the poorer results of the previous months.

No change of any importance is noted at Glasgow. The volume of trade is well maintained and prices are steady. The ship-building industry continues its good demand and shows signs of doing so for some time to come. There has been a little more request for Quebec pine and several large lines have been moving. Stocks of sidings are increasing and the demand is not quite so strong. Arrivals of spruce are light and values are firm. Birch logs, in spite of large arrivals are selling quickly at good prices.

United States

In the United States the lumber trade at present is characterized in general by the same shortage of dry lumber as the trade in Canada is experiencing. Compared with the actual demand, the quantity of dry lumber ready for shipping is exceptionally small. Dealers and consumers for several years have been buying in a hand-to-mouth manner and the result is that throughout the whole country retail stocks are short. Accordingly there is both a good demand in general and a small supply. Prices therefore, are quite strong. In the northern pine trade a steady season has been experienced. Now that a good crop seems to be assured, the demand for northern pine is vigorous. The trade in hemlock is enjoying a period of prosperity such as it has not had for years. Dry lumber in the Great Lakes region has practically disappeared and the demand is so strong that green stuff is being shipped from the saw. Eastern spruce in New York continues its strength and the same applies to New England.

Chicago:—The movement of lumber has increased noticeably since the first of September. Apparently the dealers are anticipating a good Fall trade and there is quite a tendency to buy for future needs. A steady business is reported in northern pine, all grades moving actively. The box trade is still buying large quantities of the low grades. Stocks of low grades are short. The hardwood business is quite satisfactory, with numerous and large shipments. Northern hardwoods are active, birch and maple more than holding their own. There is a strong demand for low grade basswood also for

Raft containing 6,000,000 feet towed from the Georgian Bay to our Mills Arrived in Sarnia on August 5th

BUY THE BEST

Retailers and woodworking establishments who like to get AI NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

How about PINE LATH? We have a fine dry stock of No. 1—4 ft. on hand for immediate delivery.

We also make a specialty of heavy timbers cut to order any length up to 60 feet from Pine or B. C. Fir.

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Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

A. F. Holden, Pres. J. M. Diver, Vice Pres. and Gen'l. Mgr. E. C. Barre, Ass't. Mgr.

rock elm and soft elm. Plain red oak is the leader in southern woods and quartered white oak has been gaining strength. Demand for hemlock continues active at firmer prices. Good trade is reported in southern pine and prices are better than they have been for several years. Red cedar shingles are very strong, clears selling at $3.77 and stars at $3.34, Chicago basis. The demand at these prices is active. White cedars are firm and steady. Lath are in good demand and prices are strong.

Buffalo:—An increased volume of trade is reported in white pine. The demand for pattern lumber is heavier as the steel and iron companies are experiencing excellent business. Building grades are selling satisfactorily although the demand is only fair. The hardwood trade has shown a few signs of improvement and has been getting along at about an average pace. Better business is expected during September than formerly. Prices in general are steady although plain oak shows a tendency to advance. Hemlock continues active and strong in spite of the fact that prices are now $1 higher than they were two months ago. There is a good trade in progress and stocks are not heavy. Red cedar shingles are exceptionally strong and dealers report that prices are steadily advancing.

Bay City and Saginaw:—The northern pine market continues firm and the volume of business is in excess of that of last year. Low grade stocks are particularly active and scarce. Receipts have been fair, most of them coming from Georgian Bay, where it is reported that lumber is being well sold up. Saginaw Valley firms are taking large quantities of this stock. The low grade prices are $2 higher than they were at the commencement of the present year.

Market Correspondence

Important Transaction in Quebec Limits

Quebec, Sept. 9th. (Special correspondence of the Canada Lumberman): Since last report the has been an important transaction in pulpwood in this district. The Gould Pulp and Lumber Company, of Utica, N. Y., has purchased extensive limits on the Jacques Cartier River, about thirty miles north of this city. The Jacques Cartier River runs into the St. Lawrence and shipments of the produce of the limits can be made either by water or rail. It is said that the purchasers intend to erect two mills on the premises, one for the production of paper and the other for pulp. The supply of wood is very large and will last for many years.

During the past week a large quantity of white pine was shipped from Quebec to the United Kingdom. The shipment included both square and waney. Lumbermen of fifty years' experience said that for quality, length and girth they may have seen its equal, but certainly never its superior. They had thought that no such timber could be found in Canada at the present time. The timber was in a newly operated virgin forest in Ontario.

Shipments of pulpwood both by rail and water continue to be very large, as shippers are rushing it forward as quickly as possible. As a matter of fact shippers have been requested by railway companies to send the wood along without delay, as they are afraid of a shortage of cars when the grain crop begins to move.

There is now a brisk demand locally for lumber for building purposes, and several large orders have been just contracted for at what are considered good paying figures.

Prices for pulpwood remain steady at from $7.50 to $9.25 per cord. At the above figures contracts have been made for next season's delivery.

Montreal Trade Brisk all Round

Montreal, Sept. 10th (Special correspondence of the Canada Lumberman),—Again one has to report excellent business all round, or to use the expression of a prominent wholesaler, "Trade was never better." This may be the view of a confirmed optimist, but it is evident that in almost every branch brisk trade is the rule. Dry stock is very scarce, and but very little of the new cut has yet come on to the market. The continuous rainfall has had a retarding influence on the new cut, and the shortage in some lines has helped to keep prices very stiff. The feature has been the great strength of spruce, prices in nearly all descriptions having advanced. Lath is difficult to get, and there is practically no dry lath at the mills, in fact some green lath is now being shipped to supply the demand. Shingles are again a little higher.

Although there is no acute shortage of cars, such as is expected a little later, lumbermen could do with a bigger supply than is to be secured. The C. P. R. has put an embargo on cars with lumber coming from certain of the G. T. and C. N. R. terminals.

Shipments to Great Britain are still very satisfactory, with prices firm. Canal boats for New York are more plentiful.

The building permits for August show a total of $1,364,833—a decrease of $433,853 as compared with the corresponding period last year, but this is accounted for by certain projected buildings being held up owing to shortness of staff in the civic building department. The total for the eight months of the current year is $11,181,376, or a gain of $1,106,764.

Conditions in the pulp and paper sections continue to be satisfactory, the news print mills having just a little more business than they can comfortably handle. Sulphite fibre is at a premium, all reports indicating that this position will be maintained for a long time to come.

The heavy rainfalls have made a larger production in ground wood possible; and although the movement to the United States has shown a decrease of 35 to 40 per cent. as compared with last year, the consumption in Canada has been very heavy. One large mill, for example, has entered into a contract for 50 tons per day for a year. The Spanish River and Lake Superior Paper Companies are converting their ground wood into news paper, and this has left very little surplus, with the result that good authorities are of opinion that there will not be sufficient ground wood in stock to take care of the heavy Fall demand.

Buoyant Trade in the Tonawandas

The Tonawandas, N.Y., Sept. 9. (Special correspondence of the Canada Lumberman). September promises to eclipse all previous monthly records for volume of business in 1912. Orders began to pick up with almost the first day of the month and market activity promises to continue throughout the month. All lines are affected. White pine shows the greatest strength but the hard woods are a close second and hemlock is holding its own as a leader. The midsummer lull has been shaken off and dealers look for what many of them predict will be the best months of the year between now and the close of navigation on lakes and canal. The presidential election campaign has apparently had no deterrent effect whatever on business. For not only is lumber particularly brisk at the Tonawandas but all lines of local wholesale production are experiencing especially favorable conditions. The big plant of the Tonawanda Iron & Steel Company that employs nearly 1,000 men and has been idle for more than a year will re-open next month with orders booked to keep it busy for some time to come.

September is always a big month for receipts of lumber by water, but it promises to show a larger total this year than for several years. Dealers are rushing large blocks of stock from upper lake ports partly to help meet the increase in orders and partly to help stock up for the winter. One fleet of boats arriving within a 24 hour period last week brought upward of 80,000,000 feet. Local lumber receipts for August 1912 were less than for the same month last year. The exact figures for August 1912 were 52,902,875 feet of lumber. In August 1911, 55,775,493 feet of lumber was received at the Tonawandas. Receipts of lath, posts, ties and wood pulp have been fair.

While the break in the Erie canal at Bushnell's Basin is fully as serious as first reported, a temporary channel will be completed by October 1. Many of the lumber cargoes from the Tonawandas and Buffalo are waiting at the Tonawandas for the break to be repaired. Local shippers while inconvenienced by the break are confident of geting all their orders forward in time. Small shipments are being made by rail to tide over customers until canal navigation is resumed.

Labor was never so scarce in local lumber yards, box factories and wood-working factories. The reason is partly increased business in all these lines and greater activity in other local manufacturing. Wages are higher than ever before. Pilers in the lumber yards are earning as high as $2.25 a day and want more. It isn't so long ago that all the labor needed could be had for not more than $1.50 a day. Some of the yards have run advertisements constantly all summer in local papers for help.

A scarcity of carpenters delayed building operations in the Tonawandas during the past week.

H. Briese's sawmill at Ullswater, Ont., which was destroyed by fire recently, is being rapidly rebuilt, the new mill will have a capacity of about 2,000 feet per day and will be completed in time to renew operations during the present year.

The new plant of the British Canadian London Corporation at Queensborough, B.C., was put in operation on August 19th. Active operations were not commenced for another week, so that the machinery might be put in use for a short time each day, and thereby properly adjusted. The plant gives employment to two hundred and fifty men, the manager being Mr. J. H. McDonald.

What J. D. Shier says about the Barkey Lumber Register

Barkey Bros., Stouffville, Ont.

Dear Sirs,

Yours to hand and noted. We have been using one of the George Lumber Registers for some years past and find it still working well. It gives very accurate measurements and have never known it to make a mistake. When in need of another we will certainly get one of the same kind.

We remain respectfully yours,

Feb. 5, 1908. J. D. SHIER, Orillia, Ont.

Can be used on any moulding or matching machine.
Ensures absolute accuracy and saves one man measuring.
Sent on 30 days' trial, return at our expense if not satisfactory

BARKEY BROS.
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Canada's Greatest General Trade Journal

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The Financial, Commercial and General Trade Newspaper of Canada's Inland Empire.

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$2 per Year

Covers Central and Western Canada Like a Blanket

BORDEN'S
St. Charles Brand
Evaporated Milk

Is the old reliable, has always taken the lead and always will.

The BEST for the CAMP, the MINE and the HOME.

Distributed exclusively by the Wholesale Trade

Borden's Milk Co., Limited

Originators of Condensed Milk and Largest Manufacturers of Milk Products in the World.

"LEADERS OF QUALITY" ESTABLISHED 1857

Wm. H. Dunn, Agent - - MONTREAL

Jenckes Boilers

WE aim to keep on hand a well assorted stock of Horizontal Tubular, Vertical and Locomotive Type Boilers. Your enquiry will probably find us in a position to ship the required boiler at once; if not it can quickly be built. Write us anyway.

The Jenckes Machine Co.
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Sherbrooke - Montreal - St. Catharines - Cobalt - South Porcupine - Vancouver - Rossland
Works: Sherbrooke, Que., St. Catharines, Ont.

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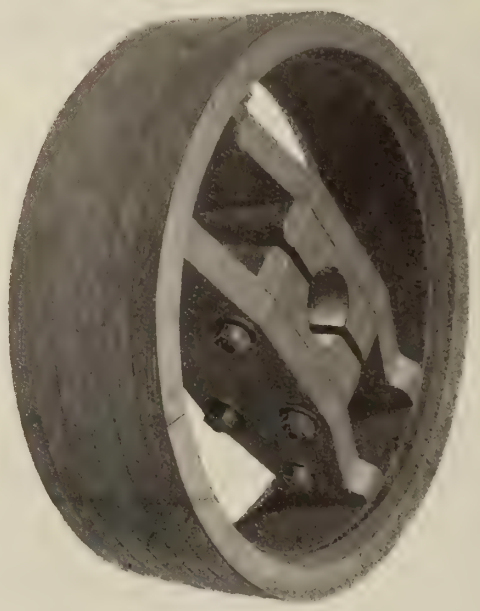
Wood Split Pulleys



We have been making these Pulleys for nearly three years and have never had a complaint against the Pulley. If you will try one you will never use any other kind.

Elmira Machinery & Transmission Co.
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225 Board of Trade Bldg.,
Montreal

EDGINGS

Ontario

The lumber and sawmill of James Elliott, Scotland, Ont., was recently destroyed by fire.

The Construction Lumber Company, 1916 Davenport Road, Toronto, suffered a slight loss by fire recently.

The Riordon Pulp & Paper Company have awarded a contract to C. E. Deakin, 11 St. Sacrament street, Montreal, for additions and alterations to their mill at Hawkesbury, Ont.

The planing mill of James Staples at Runnymede, near Toronto, was recently destroyed by fire, the loss being about $2,500. The fire is believed to have been of incendiary origin.

S. Anglin & Company, Kingston, Ont., are considering the erection of a woodworking factory. They are planning for a building of two storeys, of frame construction with concrete foundation. They will require woodworking machinery.

Messrs. T. A. Cairns, Geo. L. Kaempf and Jos. E. Foster, Guelph, Ont., have opened a new planing mill business in that city. They will manufacture and deal in general planing mill work and make a specialty of office, stair and interior fittings.

Incorporation papers have been secured by the Elliot Woodworker, Ltd., Toronto, with a capital stock of $40,000, to manufacture woodworking and other machinery. A plant will be established for the purpose. William A. and Glen W. Elliot and Armour A. Miller are the provisional directors.

The Donnaconna Paper Company, Limited, has been incorporated with a capital of $3,500,000 to carry on business as manufacturers and dealers in wood pulp and paper of all kinds with head office at Toronto. The provisional directors are J. S. Lovell, accountant, E. J. McEwen, law student, and Glyn Osler, barrister, all of Toronto.

Thomas M. Uptegraff, of Niagara Falls, N.Y.; Walter D. Uptegraff, of Pittsburgh, Pa., and James M. Uptegraff, of New Brighton, Pa., are the incorporators of a new $25,000 concern to be known as the Canadian-American Wood and Pulp Company. The company intend to do a general timber and lumber business, and will buy wood pulp lands in Canada.

The New Ontario Colonization Company, Limited, has been incorporated with a capital of $1,250,000, to carry on business as lumbermen, timber merchants, sawmillers, pulp and paper manufacturers and dealers in all kinds of wood products, with head office at Toronto. The provisional directors are J. F. MacGregor, accountant, H. E. McKitrick and Alfred Bicknell, solicitors, all of Toronto.

A despatch from Beaudette, Minn., states that the large mill of the Rainy River Lumber Company, at Rainy River, Ontario, has shut down for the season and it is likely that it will be dismantled and moved to Banning, Ont. It is also rumored that the Rat Portage Lumber Company is negotiating for its purchase. The people of that place hope that the latter is true for it would be a great loss for Rainy River to lose the mill.

The St. Marys Wood Specialty Company, St. Marys, Ont., are preparing plans for the erection of a sawmill. They will install an outfit of up-to-date machinery, and subsequently will build a handle factory. The company will erect the sawmill this fall, on the Weir property and subsequently the flax mill will be converted into a handle factory. The handle factory will be equipped with special machinery, designed by a member of the company and built in their own factory.

An Ontario charter has been issued to a company which will control the timber limits bought from the Ontario Government recently in Northern Ontario. The capital of the company will be $1,250,000, to be divided into 12,500 shares of $100 each. It will trade under the name of The New Ontario Colonization Company, Limited. Wood pulp and paper will be the principal manufacture in which the company will centre its attention, but it has also obtained permission to carry on the business of lumbermen and sawmillers. The company also propose to build and operate a line of lake and river boats for both passenger and freight business.

Eastern Canada

The Roberval Paper Company, Roberval, P.Q., intend to make additions to their plant and will require hydraulic power machinery.

Grand & Mounce, Cumberland, B.C., whose sawmill was recently destroyed by fire, intend to rebuild at once and are in the market for new machinery.

The International Paper Company, of New York, are contemplating the erection of an up-to-date pulp and paper mill at Grand Falls, N.B., to cost $3,000,000.

The Richards Manufacturing Company, Campbellton, N.B., are contemplating the erection of a mill at St. Leonards, N.B., for the manufacture of lumber, ties, shingles, etc.

Odilon Boily's sawmill at Baie St. Paul, P.Q., was recently destroyed by fire. The loss amounted to about $16,000. The mill will be rebuilt and the owner will require new machinery.

Mr. P. L. Spicer, of the Newville Lumber Company, Parrsboro, N. S., reports that the company have not yet decided upon their plans in regard to rebuilding their mill at Newville, which has been recently destroyed by fire.

Sir William Van Horne has been elected president of the Grand Falls Power Company, which will establish at Grand Falls, N.B., a paper and pulp mill. The plans are understood to provide for the erection of a modern paper and pulp plant at a cost of $7,500,000.

New tenders are to be called for the construction of the Quebec dry dock and harbor improvements, works which will cost considerably over $5,-

600,000 to complete. The wharves and sheds for which tenders were recently submitted but not awarded will be done as straight contract for the government.

Harrison & Hicks, whose shingle mill at Dalhousie Junction, N.B., was recently destroyed by fire, will erect a new mill at a cost of $6,000. They will be in the market for from six to ten shingle machines, steam boilers, engine, circular shingle saws, steel smoke stacks, etc. Full information can be secured from Allan W. Hicks, Dalhousie Junction, N.B.

The Sydney Lumber Company, Limited, Dalhousie, N.B., whose mill was recently destroyed by fire, will rebuild the mill at a cost of $50,000. They will be in the market for shingle machines, heading and stave machines, band and gang sawmills, conveying and transmission machinery, dynamo, electric wiring, etc., and from four to six boilers. N. J. Gorman is the manager of the mill.

The Provincial Lumber Company, Limited, manufacturers and wholesalers of New Brunswick and Nova Scotia pine, spruce and hemlock lumber, have opened a sales office at 71 Beaver street, New York, to be under the management of Mr. George E. Deming, secretary. Mr. Deming has been for many years connected with the wholesale lumber trade of the Metropolitan District and vicinity. The other officers in the company are George McKean, president, of St. John's, N.B., and William E. Golding, treasurer, of St. John's, N.B. Mr. McKean has for years been prominent in the lumber manufacturing trade of St John's, N.B., and vicinity. The company will handle the lumber products of the interests represented by Mr. McKean and his associates, who have been manufacturing large quantities of lumber for the European and South American markets for years, approximating an annual output of 80,000,000 feet. Some portion of this product has previously been sold in the United States, but hereafter this will be handled entirely by the Provincial Lumber Company, Limited. The Kent Lumber Company, of Gold River, N.S., and the River Valley Lumber Company, of Oromocto, N.B., are two of the concerns whose product will be distributed through this office, the companies combined having a daily production of 125,000 feet. In addition to the product of these two mills the company will also have the exclusive sale of the cut of two mills under contract amounting to 25,000,000 feet of lumber and large supplies of lath. A specialty will be made of car shipments of hemlock of all sizes up to 20 feet long.

A report from Fredericton, N.B., states that an expert forester and six assistants are at present cruising the Scott Lumber Company's lands, an option having been given on the property to a well-known lumber company. At present the cruising is going on on the Magaguadavic lands and afterwards will be carried on on the Pokiok property and then on the Morrow lands in Sunbury County. It is understood that the option which has been secured includes the Victoria Mills, which the prospective buyers plan to operate.

Western Canada

R. Grant & Company's sawmill at Cumberland, B.C., is reported to have been destroyed by fire.

Black & Logan, Yorkton, Sask., are erecting a planing mill at a cost of $5,000. The building is to be two storeys, 36 ft. by 60 ft

Hatch Bros., sash and door factory at Vancouver, B.C., valued at $30,000, was recently destroyed by fire. The factory will be rebuilt.

The Royal City Mills site in New Westminster has been bought by the Canadian Northern for between six and seven hundred thousand dollars.

J. H. Lyons, who has been engaged in the lumber business in Saskatoon, Sask., has been succeeded by the Morehart Broderick Lumber Company.

Limits in British Columbia, estimated to contain 300,000,000 feet of timber, have been purchased by the Grain Growers' Grain Company, of Winnipeg.

Sawmills in Vancouver must install sawdust burners before January 1st next, according to the order issued by the city council, following complaints from residents.

Cushing Bros., Regina, Sask., sash and door manufacturers, have commenced the erection of an office and warehouse to cost $20,000. The building will be three storeys, 103 ft. by 53 ft.

Following the re-organization of the Dominion Sawmills & Lumber, Limited, a new name has been chosen, that of the United Sawmills & Timber Company, Limited. A board of management resident in Canada will be appointed.

The Acme Sash and Door Company, Limited, Winnipeg, Man., have awarded a contract for the erection of a factory at St. Boniface to cost $10,000. The building will be two storeys, 104 ft. x 72 ft., concrete foundation, mill construction, with patent roofing, electric lighting and hot air heating. The machinery has already been purchased.

The Canadian Puget Sound Company, whose mill was recently destroyed by fire, have let a contract for the construction of extensive additions to their plant on Rock Bay near Victoria, B.C. The work will be commenced at once and will include a sash and door factory, a planing mill, a large warehouse for keeping dry lumber, etc. Parfitt Bros., Victoria, B.C., have the contract.

Peter Lund, of the Crow's Nest Pass Lumber Company, has organized the Lund Development Company, which will secure logged-over lands and after clearing away the stumps and irrigating the areas, will dispose of them as small holdings. Mr. Lund has about 300 acres of land already in crop at Wardner and Marysville, and this will be increased, so that all the supplies of the company's logging camps may be grown.

The Alberta Lumber Company, Edmonton, Alta., who recently secured a large property on First street east and Fourth avenue north, are now ready to take care of trade. Sheds are being erected for the protection of their stock from the weather. One of the sheds is 104 ft. by 128 feet, and will be used for storing the higher quality of stock and seasoned material. Another large shed will be used for storing sash and doors, plaster, cement, etc. Concrete footings have been laid for the piling of all the lumber in the yard.

President and General Manager D. C. CAMERON, Winnipeg
Assistant General Manager WM. ROBERTSON, Vancouver
Secretary-Treasurer, WILSON BELL, Winnipeg

The Rat Portage Lumber Co. Ltd.

Manufacturers of

Fir, Cedar and Spruce

LUMBER

Cedar Shingles, Fir and Cedar Lath

Car Sills and Sheathing, Cedar Siding

Large and Long Timbers
for heavy construction work

Vancouver, B.C., and Harrison River, B.C.

Dry Mill Cull and Box Lumber Becoming Scarce

These grades are being rapidly picked up. We have still a nice stock of last season's cut.

White Pine *for the* **Wholesale Trade**

We advise you to write, wire, or 'phone without delay and get the benefit of our low prices.

Thos. Mackarell & Co.

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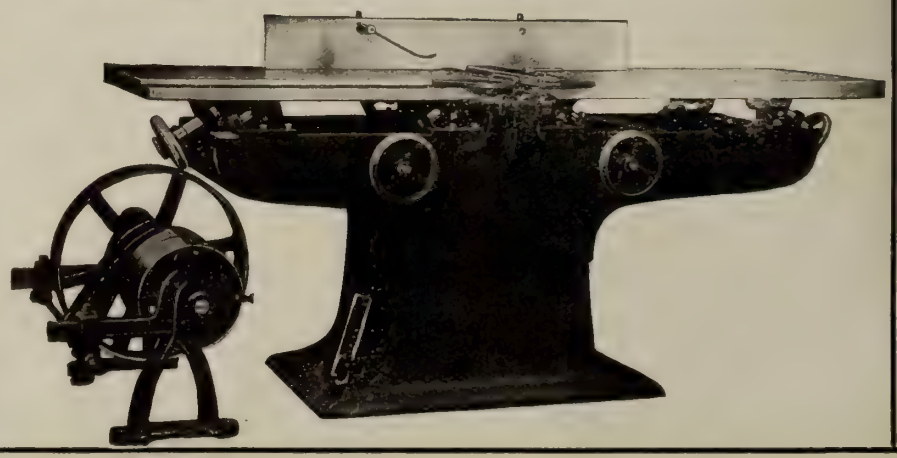
Thousands of Silver's Machines are earning big money in all parts of the world. Australia, New Zealand, South Africa and India are heavy buyers.

Silver's machines are designed for convenience and ease of operation and for rapid efficient service. Their moderate price recommends them to all wood workers.

Strong, durable, high pressure machines that will save you time and labor. Made in sizes to suit any need or any purse.

Ask for 1911 Machinery Catalog and special Canadian prices.



THE SILVER MFG. CO.

375 BROADWAY SALEM, OHIO

Gentlemen:-

this ad. presents to you

"AMPHIBIA"

The **Leather Belting** which costs less per day of service than any other and rivals the frog in it's waterproof qualities. Consider this "Cost-per-day-of-service" basis when you buy belting and don't be led into buying a belt simply because it's purchase price is low. It is the length of service per dollar invested that really determines the the value of your belting.

Prove "AMPHIBIA" yourself by keeping tab on a trial order.

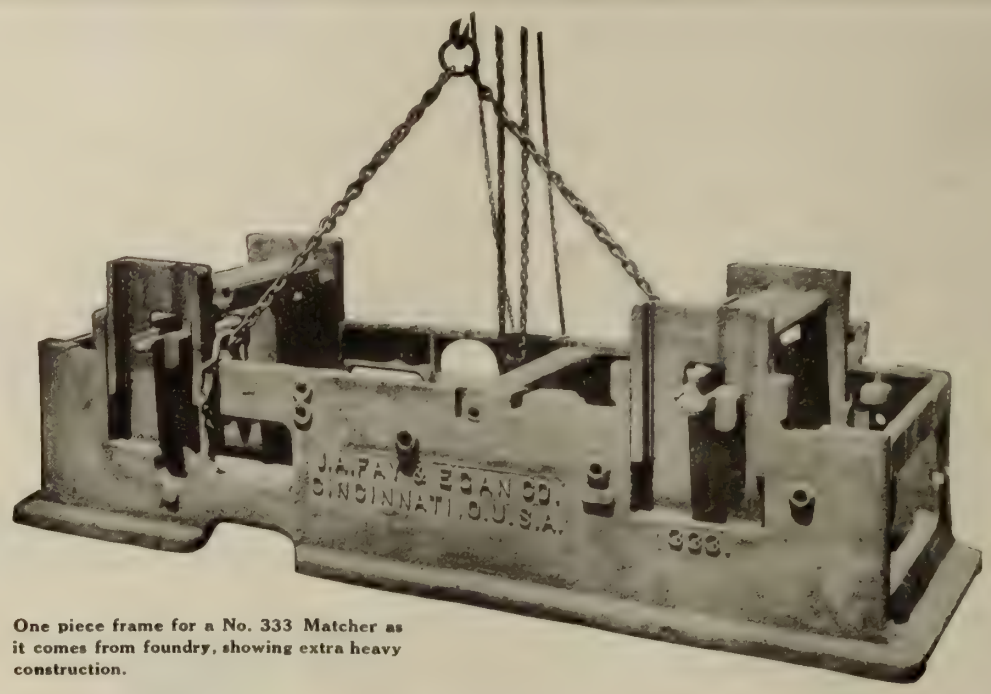
Sadler & Haworth

Tanners and Manufacturers

For Over 35 Years Makers of the Best Leather Belts

MONTREAL TORONTO ST. JOHN, N.B. WINNIPEG VANCOUVER

To insure satisfaction—State where belt is to run



One piece frame for a No. 333 Matcher as it comes from foundry, showing extra heavy construction.

FAY-EGAN "LIGHTNING" "333" Matchers are built with a reserve power sufficient to take care of any increased service required by improved manufacturing methods—

—the extra heavy one piece frame gives the strength, the big gears cut from the solid and running in grease give the power, and construction throughout gives that reserve factor which makes the "333" a good investment not only for today but for many years to come—

—as a straight matcher the "333" has been an unqualified success, in spite of the fierce efforts of competition to keep it out of the field—

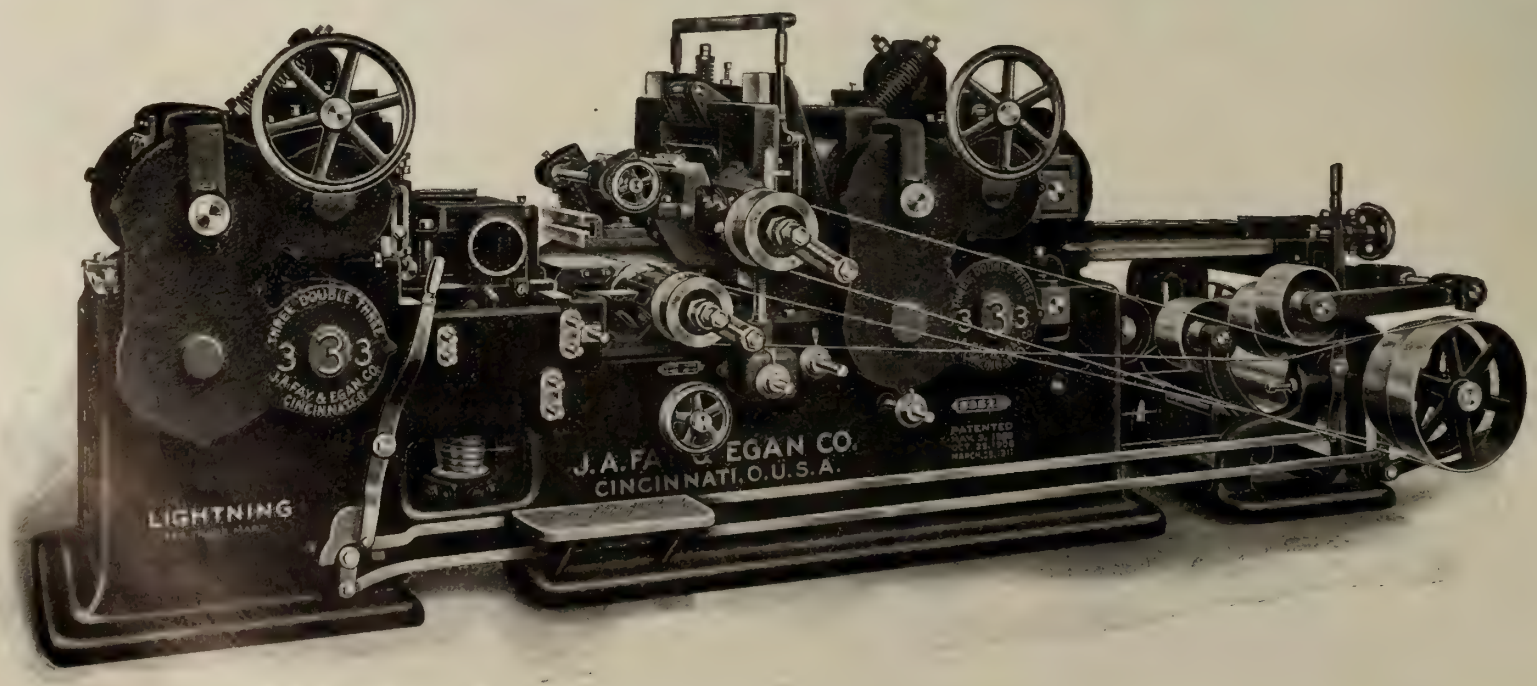
—the additional equipment made necessary by improved manufacturing methods—Profilers—Automatic Feeders—Twin Spindle Resaws—Horizontal Band Resaws—all of these we have added to the original "333" and its limit is not yet in sight.

"Can you say as much for the Matcher you are using?"—if not, write us for information on the "333."

J. A. FAY & EGAN CO.

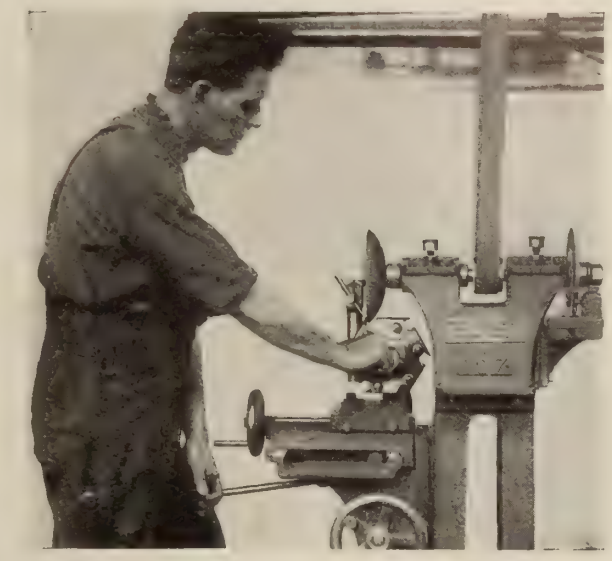
Executive Offices and Works: 465-485 W. Front St., CINCINNATI, OHIO

Sales Offices: NEW YORK CHICAGO NEW ORLEANS ST. LOUIS SEATTLE



The Old Way

Berlin Profilers Are Insurance Against Mismanufactured Stock. Patterns Are Always True to Standard.



The New Way

Berlin Milled Bits Retain Their Shape

Had any trouble with your profile work? Most mills do—until they install Berlin High-Efficiency Matchers.

With old methods bits are filed to shape. It's a hard job, and patterns don't match.

Berlin Profilers overcome that difficulty.

Our bits are the best high speed steel and milled to shape.

They retain their original shape because they are ground on the bevel side only. It takes but a very few minutes to grind them and it makes no difference how often you grind they never lose their form.

New bits cut the exact pattern that the old ones did, because they are made with the same milling cutter.

Compare our method of grinding with the old way. Filing the bit to shape as shown above is a tedious and difficult job.

It is absolutely impossible to file bits the same every time. Consequently, patterns differ when you use the old style bits.

With our milled bits and method of grinding, profile patterns made today match with those made a year ago or a year hence.

Stock that formerly graded No. 2 on account of mismanufacture grades No. 1.

What's the result? You get more money for your product.

No. 117 Drop Siding

Our designers have built a 6-bitted profile head that manufactures No. 117 drop siding at 250 feet a minute on our High-Efficiency Matchers.

We will send samples of work done at this speed if you desire to see the quality of work Berlin Profilers do at fast feeds.

These new heads don't tear out the knots or raise the grain. The quality of finish is unequalled.

Berlin Profilers are mounted on the heavy one-piece frame just as the cutter head yokes, and run without vibration.

The High-Efficiency Matcher

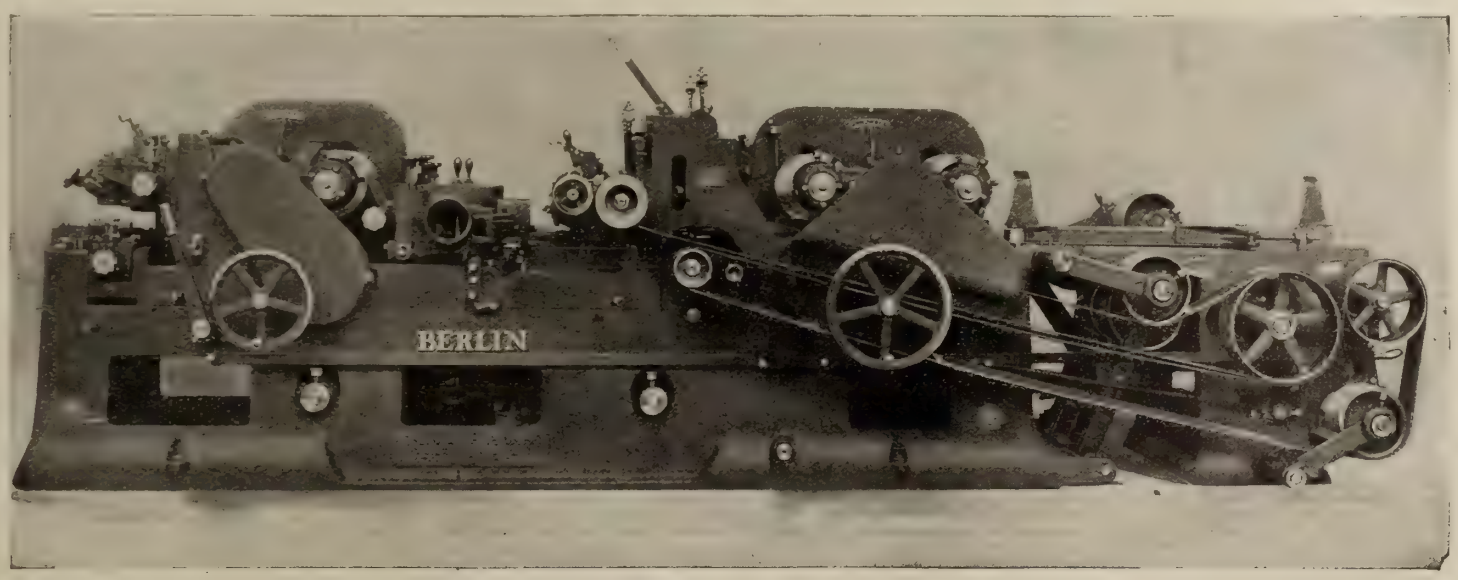
Regarding the machine—not only the profiling devices, but the machine as a whole is the most efficient ever built.

It does the work of three 100-foot a minute machines and does it better. It raises grades 10 to 30 per cent. and cuts producing costs 40 to 60 per cent.

Go and see one running in your own territory. Investigate and be convinced that you can cut producing costs, upkeep and labor expenses, and increase your mill capacity at the same time.

We can put you in touch with mills where Berlin High-Efficiency Matchers are doing all we claim.

Write today for detailed description of this new series of matchers.



Send for ten-page circular of this new machine

THE BERLIN MACHINE WORKS, LTD., HAMILTON, ONT.

Largest Manufacturers of Woodworking Machinery in the World

United States Plant: Beloit, Wis.

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$60 00	65 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C & B	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
1½-in. No. 1, 2 and 3 Cuts	48 00	50 00
2-in. No. 1, 2 and 3 Cuts	48 00	50 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	24 00	26 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	30 00	32 00
1 x 12 common and dressing	39 00	41 00
1x10 and 12 mill cull stocks	21 00	22 00
1-in. mill cull sidings		18 50
2 x 10 common	27 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	22 50	23 50
1 x 10 inch box and common	24 00	25 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	24 00	26 00
1-in. mill run shorts		19 00
1-in. deal cull sidings		15 00
1¼-in. flooring		28 00
1-in. mill run Norway		22 00
2-in. mill run Norway		25 00
Norway, c and cf 1-in.	34 00	35 00
Norway, c and cf 1½-in.	35 00	38 00
Norway, c and cf 2-in.	33 00	35 00
Spruce mill run	21 00	22 00
Spruce mill culls	15 00	16 00
Clear in. B.C. cedar, kiln dried	55 50	65 50
Douglas Fir		
Dimension Timber up to 32 feet:		
8, 10x10, 10x12, 1x14, 12x12, 12x014, 14x14, 14x16		34 00
8x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 14x18, 16x18 18x18, and 20x20		34 50
6x14, 8x14, 12x18, 18x20		35 00
6x16, 8x16, 10x18, 12r20, 14x20, anh 16x20		35 00
10 x 20		36 00
6 x 18, 8 x 18		36 50
6 x 20, 8 x 20		37 50
Lengths over 32 ft. take the following advances: 33 to 35 ft., 50c.; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5.		
Fir flooring, eoge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		45 10
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 10
1½-in. No. 1 4-ft. pine lath		4 50
1½-in. No. 2 4-ft. lath		4 00
1½-in. 32-in. pine		1 60
1½-in. No. 1 4-ft. hemlock lath		3 75
1½-in. mill run hemlock lath		3 50
X pine or cedar shingles		1 05
XXpine or cedar shingles		2 25
XXX pine or cedar shingles		3 20
XX B. C. cedar shingles		2 30
XXX 6 butts to 2-in.		3 30
XXXX 6 to 23-16-in.		3 52
XXXXX		3 75
Hemlock No. 1:		
1x4 & 5-in. x 9 to 16 ft.		16 50
1 x 6 6-in. x 9 to 16 ft.		19 50
1 x 8-in. x 9 to 61 ft.		20 50
1 x 10 and 12 in. x 9 to 16 ft.		21 00
1x7, 9 and 11 in. x 9 to 16 ft.		19 00
1-in. No. 2, 6-ft. to 16-ft. 2x4 to 12-in., 6-ft. to 16-ft.		14 50
2x4 to 12-in., 12 and 14 ft.		20 50
2x4 to 12-in., 18 ft.		22 00
2x4 to 12-in. 20 ft.		23 50
2 x 4 to 12-in., 22 ft.		25 50
2 x 4 to 12-in., 24 ft.		28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		16 00

Hardwoods—Per M. Feet, Car Lots

Ash white, 1sts and 2nds, 1½ and 2-in.	55 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	48 00
Ash, brown, common and better	37 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	55 00
Birch, 1sts and 2nds, 4/4	35 00
Birch, No. 1, com. and bet., 4/4	30 00
Birch, 1sts and 2nds, 6/4 and 8/4	38 00
Birch, 1st and 2nds, 10/4 and 12/4	42 00
Birch, 1sts and 2nds, 16/4	44 00
Basswood, 1sts and 2nds, 4/4	38 00
Basswood, No. 1, com. and bet., 4/4.	30 00
Basswood, No. 2 and 3, common	17 00
Basswood, 6/4 and 8/4, 1sts and 2nds	40 00
Basswood, 6/4 and 8/4, com. & bet.	37 00
Basswood, No. 2 common and better.	25 50
Soft elm, 1sts and 2nds, 4/4	35 00
Soft elm, No. 1 com. and bet., 4/4	29 00
Soft elm, No. 2 and 3, common	16 00
Soft elm, 6/4 and 8/4 1 and 2	38 00
Soft elm, 3-in. 1sts and 2nds	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4	50 00
Rock elm, No. 2 com. and btc. 6/4 and 8/4. and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	31 00
Soft maple, com. and better, 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	34 00
Hard maple, 1sts and 2nds, 4/4	34 00
Hard maple, common and better, 4/4.	27 00
Hard maple, 12/4 & 16/4, 1sts & 2nds.	43 00
Red oak, plain, 1sts & 2nds, 4/4	55 00
Red oak, plain, 1sts & 2nds, 6/4 & 8/4	60 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	65 00
White oak, plain, 1sts and 2nds, 4/4	55 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	60 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	70 00
White oak, ¼ cut, 1sts & 2nds, 4/4	83 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	87 06
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$53 00	55 00
1¼-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up	40 00	45 00
Pine good strips:		
1-in.	40 00	44 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	50 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	38 00	40 00
1-in. x 4-in. to 6-in.	30 00	35 00
1¼-in. and 1½-in.	45 00	50 00
2-in.	48 00	52 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	33 00	35 00
Pine, No. 1 dressing strips	26 00	31 00
Pine, No. 1 dressing shorts	22 00	26 00
Pine. 8 s.c. and better, 12 ft. to 16 ft.	23 00	24 00
Pine, 7 up s. c. siding 1-in.	22 00	25 00
Pine s. c. sidings 1½ & 2-in.	26 00	30 00
Pine, s. c. strips 1-in.	17 00	19 50
1¼, 1½ and 2-in.	22 00	24 00
Pine, s.c. shorts, 1 x 4	20 00	21 00
Pine, s.c. and bet. 1x5	21 00	22 00
Pine, s.c. and bet. 1x6	23 50	25 00
Pine, box boards:		
1"x4" and up 6'-11'	13 00	14 00
1"x3" to 6", 12'-16'	15 00	16 00
1"x7" and up 12'-16'	16 00	17 00
Pine shorts 6'-11' 1"x10"	20 00	21 00
1x8 and 9 No. 1 barn	25 00	27 00
O. culls r & w p	10 00	12 00
Red Pine log run,		
mill culls out, 1-in.	14 00	16 00
mill culls out, 1¼-in.	16 00	18 00
mill culls out, 1½-in.	17 00	19 00
Mill run Spruce:		
1"x4" and up, 6'-11	14 00	15 00
1"x4" and up, 12'-16'	16 00	17 50
1"x9"-10", & up, 12'-16'	18 00	19 00
1¼"x7" 8-9" & up, 12'-16'	18 00	20 00
1¼"x10" and up, 12'-16'	19 00	20 00
1¼" & 2"x12" & up, 12'-16'	24 00	25 00
Spruce 1-in. clear (fine dressing and B)	24 00	27 00
Hemlock 1-in. cull	10 00	12 00
Hemlock 1-in. log run	13 00	14 50
Hemlock 2x4, 6, 8, 10, 12/16'	14 00	16 50
Tamarac	13 00	15 00
Basswood log run, dead culls out	20 00	22 00
Basswood log run mill culls out	24 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
Pine, s.c. and better, 1x7	21 50	23 00
Pine, sc. and better, 1x8	23 00	25 00
Pine, s.c. and better, 1x9	23 00	25 00
Pine, s.c. and better, 1x10	25 50	27 00
1 x 10 No. 1 barn	30 00	33 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	20 00	22 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	14 00	15 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	11 00	13 00
Lath per M:		
No. 1 white pine 1⅜-in. x 4-ft.	3 75	4 00
No. 2 White Pine	3 00	3 25
Mill run white pine	3 25	3 50
Spruce, mill run 1½-in.	2 75	3 00
Red pine mill run	2 75	3 00
Tamarac mill run	1 25	2 00
Basswood, mill run	2 00	2 50
Hemlock, mill run	1 75	2 25
32-in. lath	1 25	1 75
Pine Shingles		
xxxx, 18-in.	3 50	4 00
Clear butt 18-in.	2 50	3 25
xx,	1 50	1 75
White Clear Shingles:		
xxxx, 18-in.	4 00	4 25
Clear butt, 18-in.	2 50	3 00
18-in. xx	1 60	1 85
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

	cts.	
First class Ottawa waney, 18-in. average, according to lineal	85	90

Oak—Michigan and Ohio

By the dram, according to average and quality	62	67

Elm

By the dram, according to average and quality, 40 to 45 feet	80	83
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash

13 inches and up, according to average and quality 25 30

Average 16 inch 30 40

Birch

14 inch	18	20
15 inch	22	24
16 inch	26	28
18 inch	32	30

Quebec Spruce Deals

	Per M.	
12 feet and up x 3 x 9 and up	18 00	19 00
Oddments	15 00	16 00
Boards, 1 and 2 in.	15 00	16 00

Birch Planks

1 to 4 in.	16 00	17 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	54 00
1 in., 8 in. and up wide	67 00
1¼ and 1½ in. and up wide	69 00
2 in. and up wide	72 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	67 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	47 00
1¼ in., 8-in. and up wide	57 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½-in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	48 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	22 90
1-in. x 5-in.	24 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	30 00
1-in. x 12-in.	35 00
1-in. x 13-in. and up	35 00
1¼, 1½ and 2-in.	32 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	20 00	22 00
No. 2, 1¼, 1½, 2-in.	17 00	21 00

Mill Culls

Mill run culls, 1-in.	16 00
1, 1¼, 1½ and 2-in.	18 00
No. 2	14 00 15 00

Lath

No. 1, 32-in. pine	1 50
No. 2, 48-in. pine	3 75
No. 3, 48-in. pine	3 00
No. 1, 48-in. pine	4 25
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft	8 ft	10 ft	14x16 ft
2 x 4	14 00	17 00	20 50	18 50
2 x 6	16 50	17 00	20 50	18 50
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	$20 00
6 inch	22 50
8. 10, 12 inch	23 50

Siding

6 inch No 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Dimensions, S. 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
	27 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine mixed widths	20 00
No. 4 common pine, mixed widths	14 50
No. 5 common pine, mixed widths	10 00

SHINGLES

XXX B. C. Cedar	$2 90
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00

(Continued on page 68)

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Quality Tells

There is something in the appearance of a well-made, high-grade tool which carries to the mind an undefinable feeling of real value—a sense of efficiency and creates a desire for possession.

The demand for the DISSTON BRAND Saws, Tools and Files has been steadily increasing since 1840.

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Shimer Cutter Heads and Cutters!

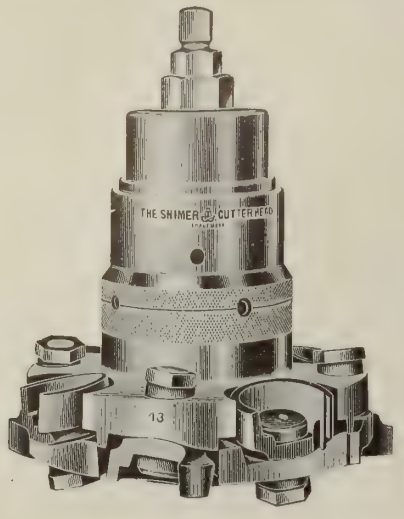

Fig 627

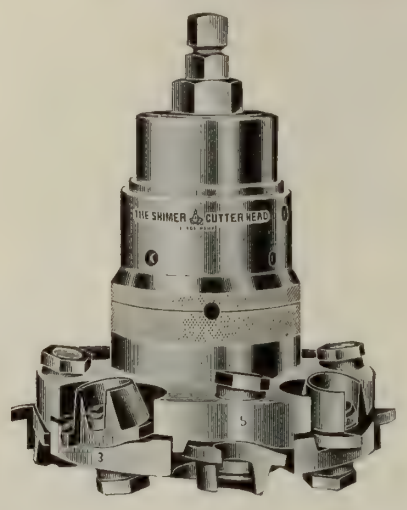

Fig. 628

The "Shimer Limited" with Expansion, price $72.46 per set, complete.

The Tools You Need.

You will eventually realize that the Shimer Limited Cutter Heads are the tools you need to increase your output without sacrificing quality or increasing expense. You will find that the mills that are using them are perfectly satisfied and will give testimony to this fact.

We don't see how it could be otherwise. We have studied planing mill conditions for forty years and have kept pace with the changing conditions by designing tools that were safe, that were efficient, that were profitable to use because time and labor saving, that were lasting and that sold at low prices.

The Shimer Limited Cutter Heads sustain and enhance the reputation built up by our other tools. In addition to the special features which have made the Shimer Cutter Head famous, these new Fast Feed Heads have a self-centering device which clings to the spindle when drawn up, securing it firmly thereto. The bit seats also carry a larger surface and the bit chambers are of greater depth to compensate for the new acute angle given to the Bits for greater relief to all parts coming into contact with the lumber. The Spindle gripping device is not only positive and effective in its purpose of holding fast to the spindle, but it also centralizes the Head on the spindle for a more uniform action of the Cutters.

The results of all cutters cutting is a smoother finish, notwithstanding the faster feed, and an output far in excess of former methods.

If you have a machine that will swing Heads of 6¾ inches diameter and feed over 150 lineal feet per minute, we would like to send you a set on 30 days' trial.

Take the measurements now and let us have your order at once.

Popular Cutter Heads

The most popular of The Shimer Cutter Heads are Figs. 202 and 203. The Bits are held within conical duplex bit seats, self-centering, arranged with the very complete Expansion feature for the fine adjustment of tongue and groove thicknesses.

Price with 4 bits to each head, the set $40.95
Price with 6 bits to each head, the set 49.27
Price with 8 bits to each head, the set 57.60

Complete with Flooring Bits. The Heads will also receive Bits for thin Ceiling—⅜ at $1.30 each and Bits for 2-in. thick plank at $1.63 each.

Jointer Heads

For jointing plain edges we make several styles of Jointer Heads provided with shearing effect to produce the easiest and at the same time the smoothest work. Made of Steel Forgings they supply the strongest and best. Our very reasonable prices put the tools within the reach of all.

Price, with 4 bits to each head, the set, 1¼-in. $31.20
Price, with 4 bits to each head, the set, 2-in. 33.28

Ship Lap Heads

to give you the best service must be of a kind that is always ready and in interchange with matcher and other Heads you may have fitted to your machine, thus avoiding a change of machine guides. This is one reason why the Shimer Ship Lap Heads are so generally used. The other reason is that they do work so satisfactorily that all who know their convenience take them in preference to others.

Price, with 4 bits to each head, the set, 1½-in. thick, $34.84
Price, with 4 bits to each head, the set, 2½-in. thick 35.88

Double Ceiling Heads

These heads have a special design to suit the purpose of double tonguing and grooving, with overlapping of the bit cutting edges to produce perfect clearance and to protect the leading points from unnecessary friction and wear.

They double the capacity of any matcher or moulder and provide a means of turning out single surfaced ceiling or flooring upon the most economical basis.

Price, Double Ceiling Heads complete with Bits, net, $40.94

Door, Sash and Coping Tools

That save all the hand fitting. No changing of patterns, therefore, no trouble in framing the door and sash parts when they are matched up with the Shimer Cutter Head. We relieve you of that detail of the business when we place the mould in counterpart within the contour of the Bits. The Bits are filed only to sharpen and being set by means of a gauge give accurate and uniform results. Prices very reasonable.

Reversible and One Way Cutters

The Shimer Reversible Cutters for Single Spindle Shapers, Variety Moulders or Friezers, are carefully moulded opposite to the shape of the mould to be produced, in such a way as to have only the cutting edge touch the lumber. They are complete—inexpensive—time saving. We also make One-Way Cutters for the Double Spindle Shaper.

Thin Steel Knives

Advanced ideas referring to the planing and surfacing of lumber have developed into the use of the thin blades, made from high speed steel, which when properly tempered and treated, serve for one or two days of work on hard maple, oak or hickory.

These blades are known as our Bedee Knives and are recommended by users as the best that can be procured. For the benefit of those desiring to use this style of a knife we have facilities to furnish them in any length or thickness.

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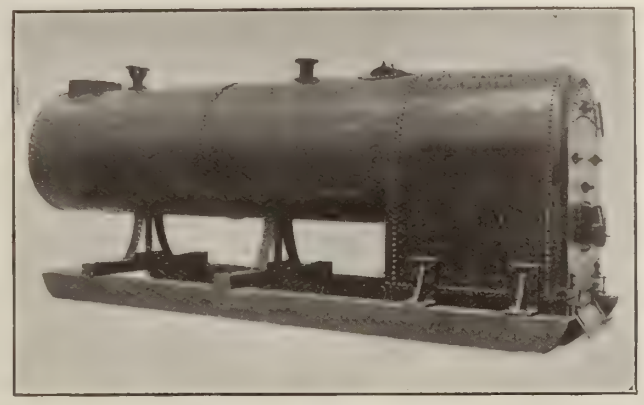
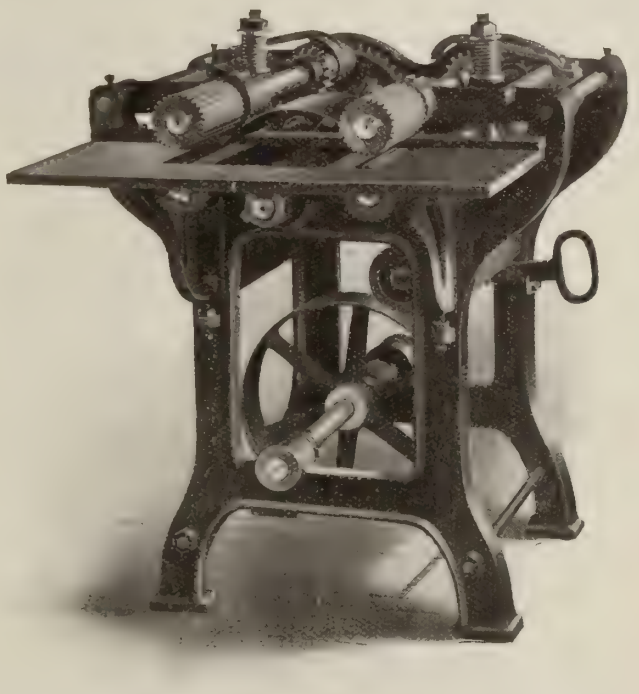


Locomotive Boiler on Skids

Self Feed Rip Saw



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The Stuart Machinery Co., Ltd.
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Agents for Saskatchewan, Alberta and Manitoba

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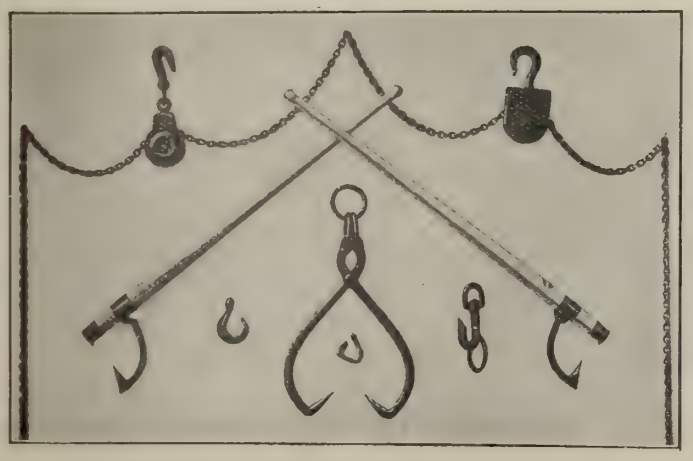

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No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00
No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	46 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	30 00
No. 2 Barn 1 x 10	32 00
No. 3 Barn 1 x 6 and 8	23 00
No. 3 Barn 1 x 10	25 00
Box 1 x 6 and up	22 00
Box 1 x 10	23 00
Box 1 x 12	25 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

White Ash

1st and 2nd, 1 inch	40 00	42 00
1¼ to 2 inch	44 00	46 00
2¼ to 4 inch	48 00	54 00
Strips	22 00	24 00
Common and culls	14 00	22 00

Black and Brown

1st and 2nd, 6 inch up	40 00	42 00
Common good culls	14 00	20 00
1st and 2nd 6 inch and up, red	40 00	42 00
1st & 2nd, white, 6 in. & up..	30 00	32 00
Common and good culls	16 00	18 00

Elm

1st and 2nd, rock, 6 in. and up	34 00	38 00
Common and culls	16 00	20 00
1st and 2nd, soft, 6 in. and up	28 00	32 00
Common and culls	13 00	18 00

Maple

1st and 2nd hand	26 00	28 00
Common and culls	14 00	22 00
1st and 2nd, soft	26 00	28 00
Common and culls	14 00	22 00

BOSTON, MASS.

White pine uppers, 1 to 2 in..		100 00
Selects, 1 to 2 inch		90 00
Fine common, 1 in.		72 00
Fine common, 1¼ to 2 in. ..	74 00	75 00
No. 1 Cuts 1 in.		45 00
No. 1 Cuts 1¼ to 2 in.	58 00	60 00
No. 2 Cuts, 1 in.	35 00	37 00
No. 2 Cuts, 1¼ to 2 in.	45 00	48 00
Barn Boards, No. 1, 1 x 12 ..	51 00	52 00
No. 1, 1 x 10..		39 00
No. 1, 1 x 8 ..		38 00
No. 2, 1 x 12 ..		43 00
No. 2, 1 x 10, ..	35 00	36 00
No. 2, 1 x 8 ..	34 00	35 00
No. 3, 1 x 12 ..	33 00	34 00
No. 3, 1 x 10 ..	28 00	30 00
No. 3, 1 x 8 ..	28 00	29 00
Canadian spruce boards	23 00	24 00
Spruce, 10 & 12 in. dimension	26 00	27 00
Spruce, 9 in. and under "		25 00
10 and 12 in. random lengths, 10 ft. and up	24 00	25 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	22 50
All other random lengths, 7" and under, 10 ft. and up ..	21 00	22 00
5-in. and up merchantable boards, 8 ft. and up, p 1s..		21 50
Vermont spruce boards, matched		23 00
matched	22 00	23 00
1 x 2 and 1 x 3 furring, p 1 s clipped and bundled		21 00

1⅝-in. spruce laths	4 50
1½-in spruce laths	3 75

New Brunswick Cedar Shingles

Extras	$3 60	$4 00
Clears	3 25	3 60
Second clears		2 75
Clear whites		2 30
Extra 1s (Clear whites out) ..		1 65
Extra 1s (Clear whites in) ..	1 50	1 60
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 50	4 00
Red Cedar Eurekas, 18-inch. 5 butts to 2-in.		4 35
Red Cedar Perfection, 5 butts to 2¾		4 90
Washington 16-in. 5 butts to 2-in. extra red cedar		4 10

The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30 Maple, $3.25 per M. ft.; 1/24 maple, $3.50 per M. ft.; 1/20 maple, $3.75 per M. ft.; above cut to dimension.

3/16 3-ply maple, 1 st. good, 3¼c. per ft.; ¼ 3-ply maple, 1 si. good, 3½c. per foot, all f.o.b. Jamestown, N.Y.

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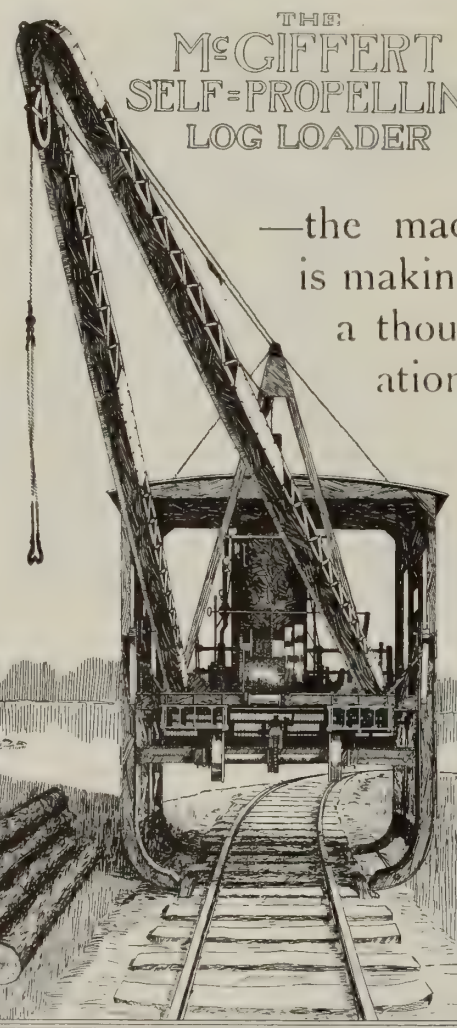

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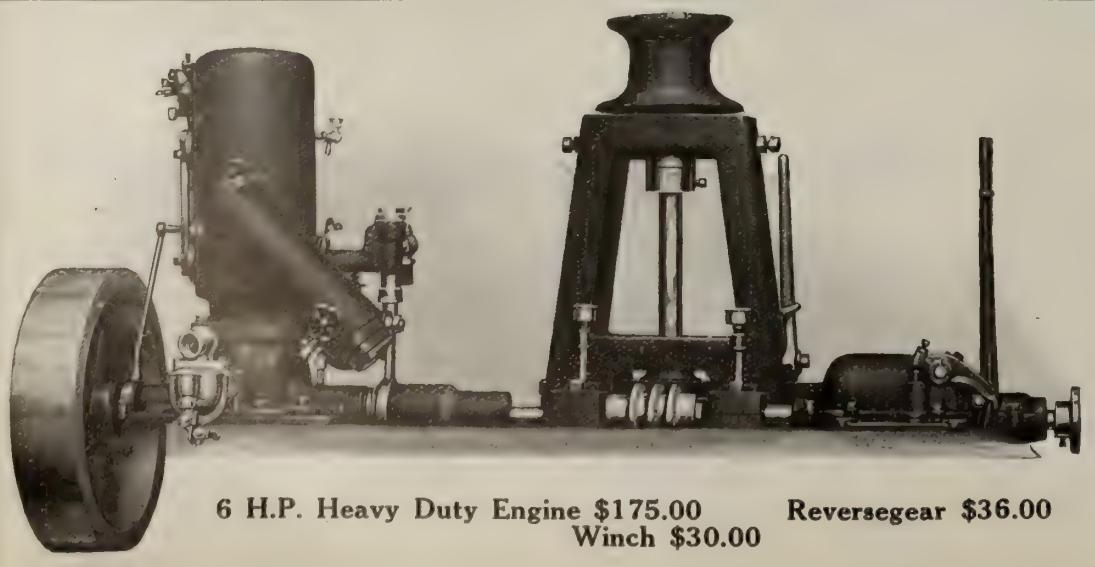

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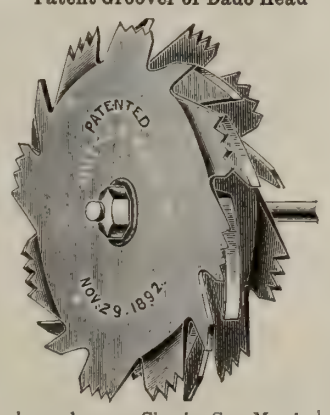

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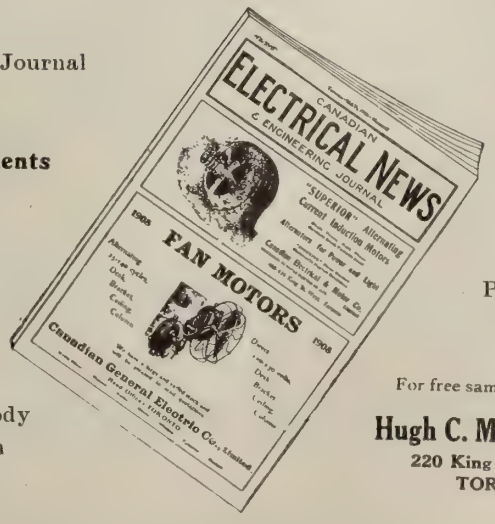

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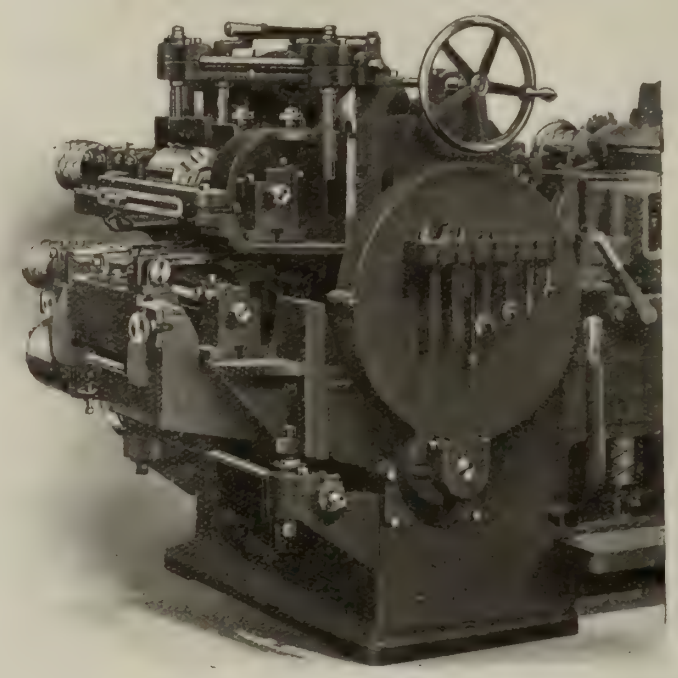

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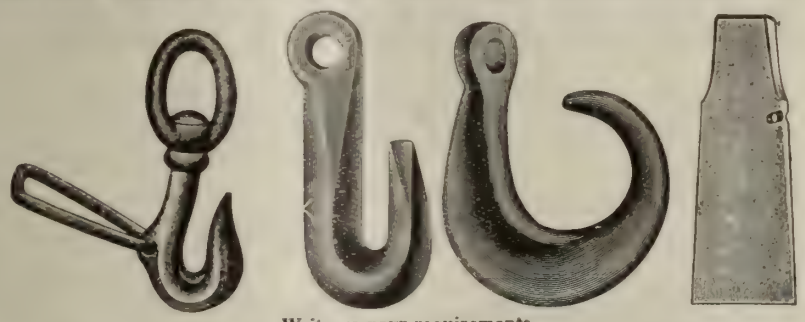

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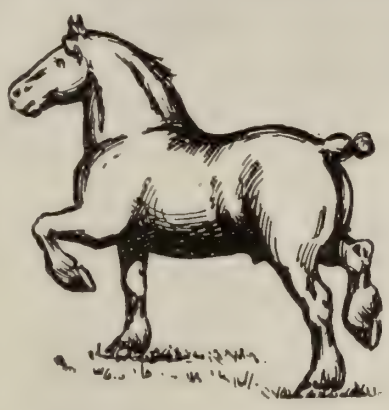
Canadian Logging Tool Company

SAULT STE. MARIE, ONTARIO

Lumber Horses



We are specializing this season in an extra fine line of Lumber Horses, guaranteed to be young and sound in every particular, and of extra weight and quality.

Consignments of heavy horses received regularly from the best shippers of heavy horses in Ontario.

Clean and sanitary barns under Government Inspection.

Loading chutes at Barn Doors via all railways.

We can supply your wants on the very shortest notice.

WRITE US YOUR REQUIREMENTS

Union Stock Yards of Toronto

Limited

HORSE DEPARTMENT

"The Place to Buy Them Worth the Money"

CHAINS

Interlocking Rivetted Pintle Chains

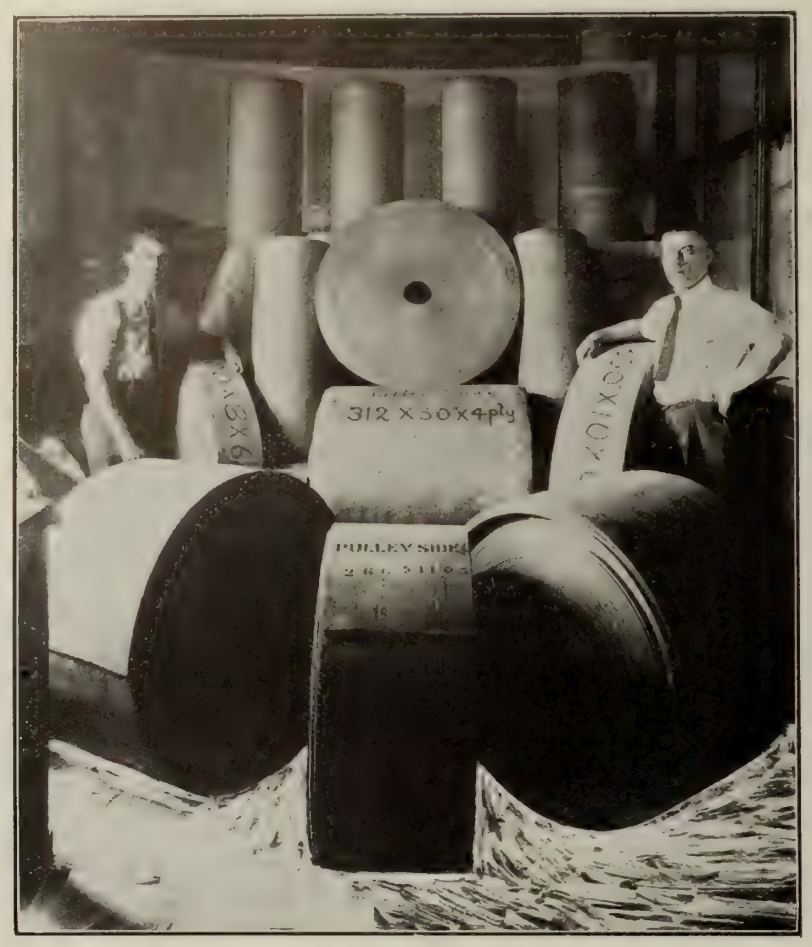
Specially constructed for lumber and saw-mill service

Manufactured by Chain Belt Co., Milwaukee, Wis.

All standard sizes carried in stock

Sold exclusively in Canada by **The A. M. ELLICOTT COMPANY, Montreal, Que.**

Elevating, Conveying and Transmission of all kinds a specialty



The Economy of Vi-Balata Belting

is the economy of the "best in the long run" systems—the choice of every long-sighted policy.

Vi-Balata is distinguishable from every other Balata Belting nominally by the prefix "Vi" and materially by the vast superiority of quality.

Vi-Balata Belting is absolutely waterproof and steamproof and will not stretch or contract with any alteration of atmospheric conditions.

Every belt guaranteed.

Sole Canadian Agents:

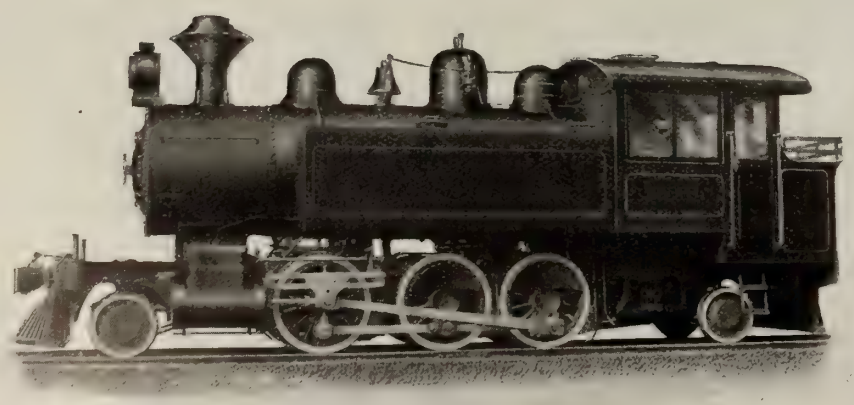
The General Supply Co. of Canada, Limited

356-58-60 Sparks Street, OTTAWA, ONTARIO

Market and Louise Sts., WINNIPEG, MAN. - - 115-125 Adelaide St. West, TORONTO

SELECTION OF LOCOMOTIVES

WHAT SHOULD BE KNOWN BEFORE YOU PURCHASE LOCOMOTIVES:—



Nature of the service.
Capacity of the cars and weight of train.
Character of track—is it new or old.
Length of haul.
Is time an important factor.
Do you want a quick locomotive or a big puller.
Distance from base of supplies and quarters for the men.
Water and coal carrying capacity.
All these items and more should be considered.
A careful study of conditions may mean larger profits.
Our experience may be valuable in considering them.
A dollar saved is more than a dollar earned.

Write or wire us, or better still, come to see us.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

Makes It's Mark Vivid and Lasting

Marks that remain vivid and wear like iron are a real satisfaction to the man who handles lumber. The metallic pigments, like graphite, of DIXON'S LUMBER CRAYONS offer marvelous resistance to all kinds of weather conditions. Their marks are often visible after six months of severe exposure to sun and storms.

DIXON'S LUMBER CRAYONS

have always remained the recognized standard because of their one, uniform and dependable quality; their convenient and uniform shape and size and because of the careful selection of materials used in their manufacture. DIXON'S LUMBER CRAYONS are made in nineteen grades and colors, including black (six grades), red (two grades), blue (two grades), green, white, yellow, brown, terra cotta, violet, pink and orange. Some are made to fill particular needs—let us tell you more about them. Get acquainted.

Write for lithographed booklet No. 239, illustrated in colors.

Joseph Dixon Crucible Company
Jersey City, U. S. A.

James W. Sewall
Forester and Surveyor

Mapping and Surveying of Wild Lands
Estimation of Timber and Working Plans

(Formerly forestry manager of the Appleton & Sewall Co.)

16 Centre Street
Old Town, Maine, U.S.A.

"John Bull" *Larrigans*

Wear Like Iron

WE tan the leather these larrigans are made from and know they will stand all kinds of wet and rough usage when properly cared for. We put a counter stiffener in our larrigans and sew it in with the leg when soled and heeled—a very durable feature in our goods.

Next time you buy larrigans see that you ask for **"John Bull."**

R. M. Beal Leather Co.
Limited
LINDSAY, Ontario

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

HEISLER GEARED LOCOMOTIVES

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works
ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

D. G. Cutler Co.
Duluth, Minnesota

Distributors of

Kelley Island Lime—(Lighthouse Brand)

Burned with WOOD, from selected Ohio bottom Rock, and packed fresh from the Kilns, in new, tight, double-headed barrels.

Can also ship you in Mixed Carloads

Hard Wall Plaster, Wood Fibre Plaster, Hydrated Lime, Mortar Colors, Waterproofing.

Distributors of HURON PORTLAND CEMENT

Wire Us Your Orders for Prompt Shipment

$3.00

Will rent a

Light Touch Monarch

for one month.

$15.00

Will rent a

Light Touch Monarch

for six months.

Sold EASY PAYMENT Plan

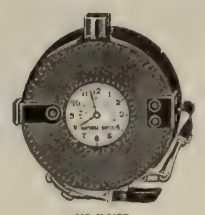
Illustrated Literature
Mailed upon request

Monarch Department

Remington Typewriter Company
(Limited)

144 Bay Street - - Toronto, Ont.

What are You Paying Your Watchman for?



CLOCK

THE HARDINGE WATCHMAN'S CLOCK can best answer this question.

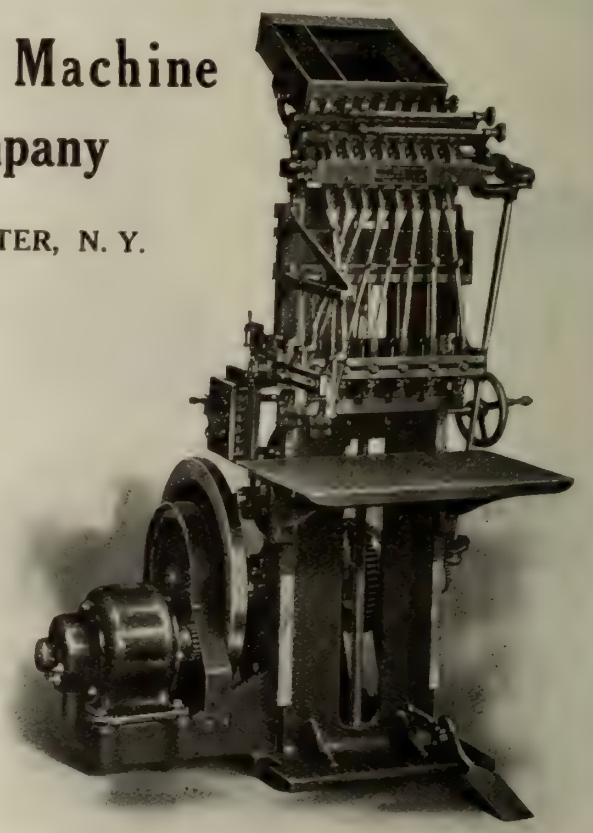
Write for Circular M-48.

STATION

HARDINGE BROS., 3133-3141 Lincoln Ave., Chicago, Ill.

Morgan Machine Company

ROCHESTER, N. Y.



Manufacturers of–

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.

Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N. Y.

Burroughs Bulletin for the Lumber Business

Our Systems Bulletin for Lumber Men tells how the Cartier Lumber Company, Ludington, Michigan, saves time and labor on their general and special office work.

They use a special style Burroughs adding machine to do much routine work that some lumber offices still do by hand.

For instance, they use a Burroughs machine to make out their Log Scale Reports. The machine prints the length and diameter of the logs, number of feet in each log and the total number of feet all at one operation. Shortens the work.

The Bulletin shows how other Lumber Dealers use the Burroughs to figure their Lumber Tally, Tally of Flooring, take Trial Balances, figure Pay Rolls, write Monthly Statements, figure Estimates, etc., in half the time it usually takes.

The Bulletin will be sent ***free*** to any Lumber Man who will ask for it on his letterhead. Just ask for Systems Bulletin No. 480.

Burroughs Adding Machine Co.
211 Burroughs Block Detroit, Michigan

"LIMESTONE" Wood Split Pulleys

The Strongest Wood Pulley Made. NAILED and GLUED

We carry the largest stock of Wood Pulleys in the Country.

ALLIGATOR BELT LACING

Also Lukenheimer Valves, Lubricating Oils and Greases, Packings, Hose, Paints, etc.

Rush Orders Promptly Filled. **Belting in Stock 1-in. to 20-in.**

LARGE BELTS A SPECIALTY

Crescent Oil Co., Hamilton, Ontario

WIRE ROPE

Kilindo

WIRE ROPE

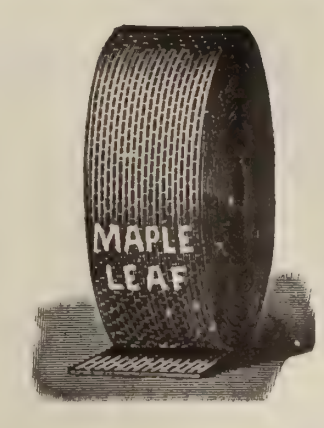
For
Cranes
Derricks
Elevators
Mines
Cargo Falls
Etc.

Does not Rotate With or Without The Load
All Sizes In Stock

The Dominion WIRE ROPE Co., Limited
MONTREAL
The General Supply Company of Canada, Ltd., Agents for Manitoba

MAPLE LEAF BELTING

Strong
Waterproof
True
Running.



For
Indoor or
Outdoor
Work

¶ Maple Leaf is the most economic and efficient belting for power transmission and conveying, etc.

¶ It costs only half as much as leather and 25 per cent less than good rubber belting.

Write for sample and prices to the sole manufacturers

DOMINION BELTING CO.
HAMILTON, CANADA

Buyers of Groceries and Provisions

BEFORE placing your next order for Camp Supplies let us quote you prices for list of requirements. We make a specialty of this class of business.

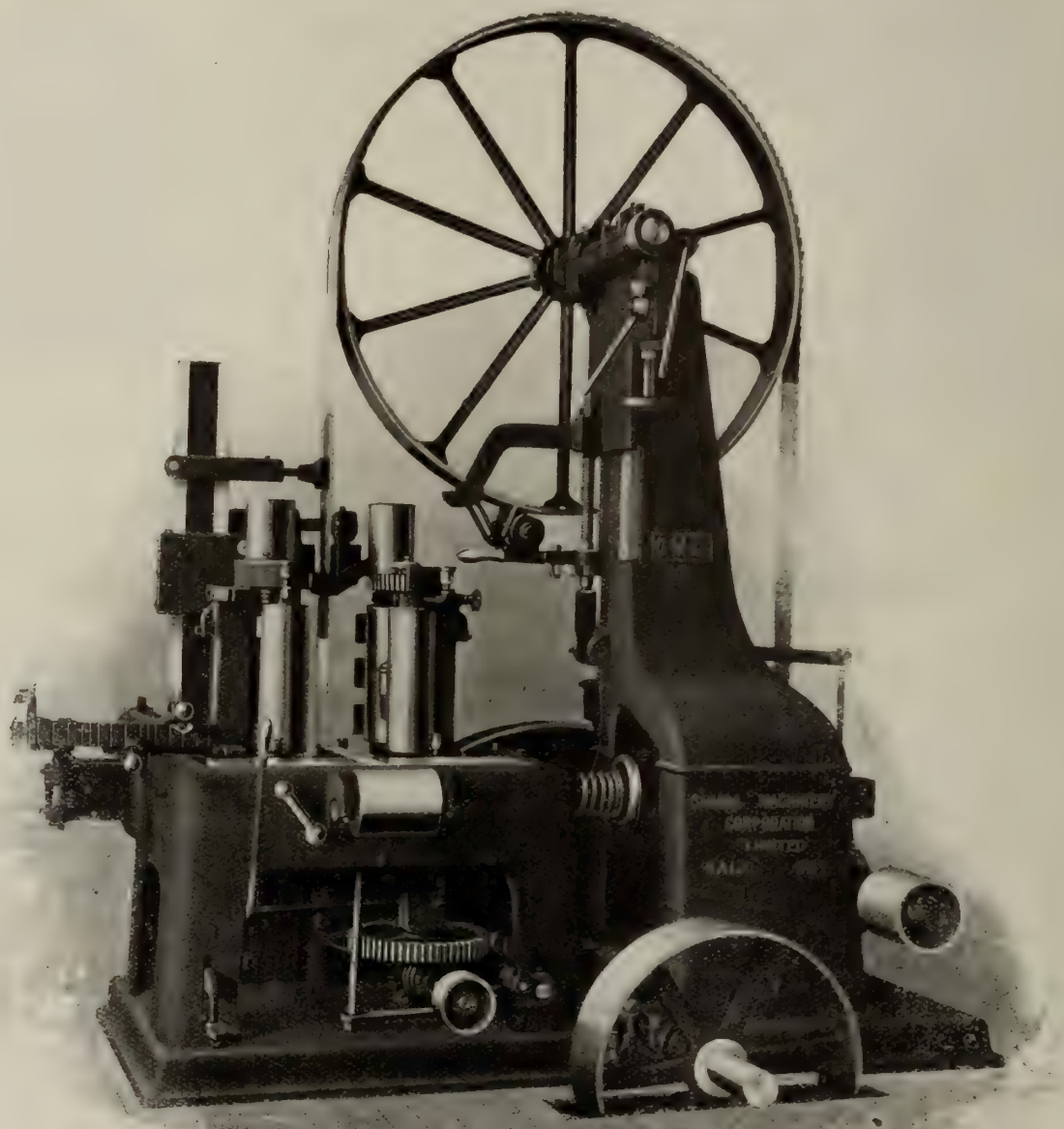
Orders shipped promptly and we guarantee the quality of all goods shipped.

H. P. Eckardt & Co. *Wholesale Grocers*
Cor. Front & Scott Sts., Toronto

No. 701
BAND RE-SAW

C.M.C.

No. 701
BAND RE-SAW



60″ BAND RE-SAW

A Large Heavy Type Band Re-Saw of the Latest Improved Design

Full Details, Bulletins and Prices Supplied on Request

We Make the Most Complete Line of Wood-Working Machinery in Canada

Canada Machinery Corporation, Limited

Galt, Ontario

Wire Rope

Haulage and Hoisting Rope

Standard and Lang's Lay

Manufactured by

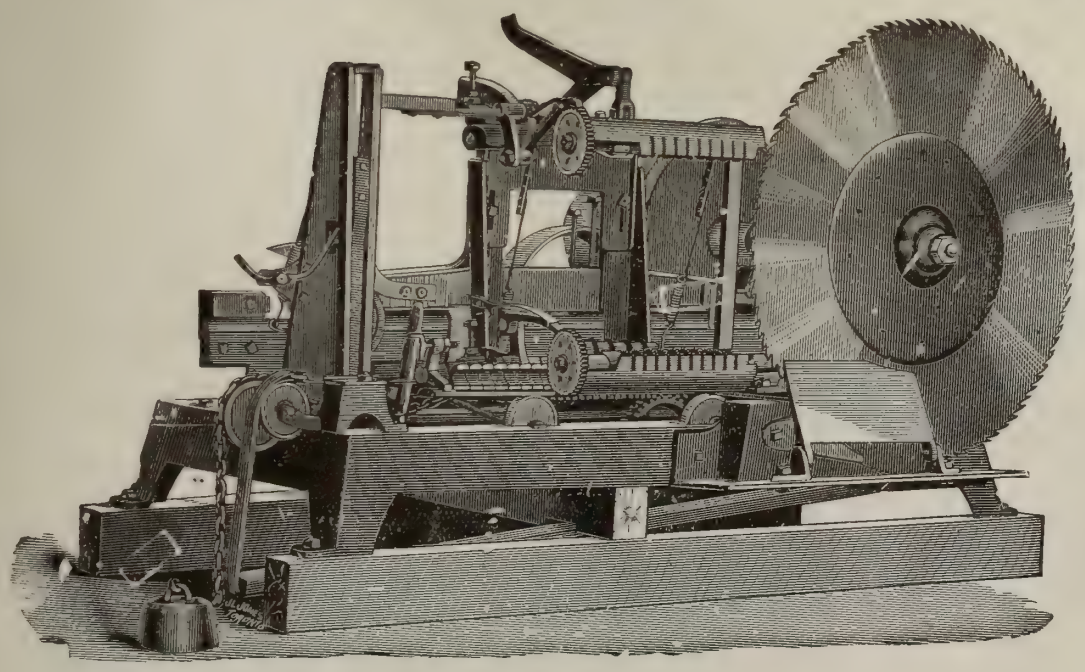
The B. Greening Wire Co., Limited

HAMILTON, ONT. and MONTREAL, QUE.

Rope Fittings **Rope Grease**

WRITE FOR CATALOGUE

Mowry's Boss Shingle Machine



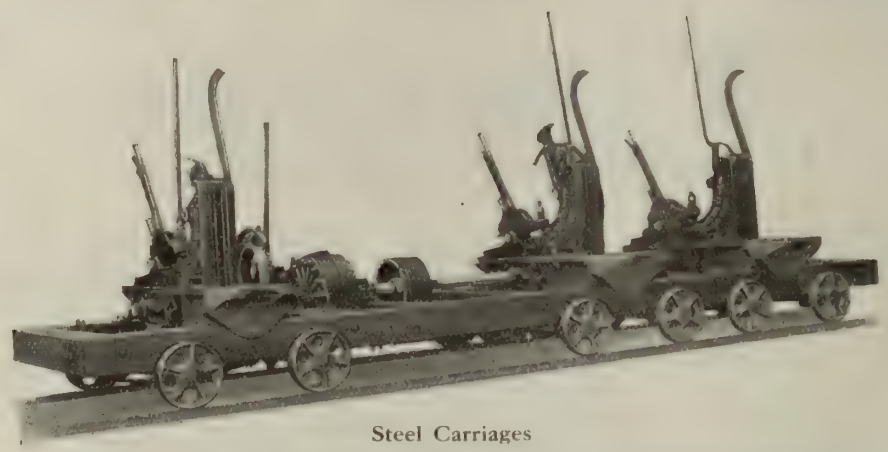
THIS MACHINE IS ONE OF THE BEST SINGLE BLOCK SHINGLE MACHINES MADE IN CANADA. Wherever introduced it has taken the place of all other shingle block machines. It is perfectly automatic in its action. The stroke is never longer than the cut, thus saving an immense amount of time, and by the touch of a lever the operator can make the machine butt all at one end, so as to bring the knots all at the thin edge. A patent brake relieves the machine of all jar when the carriage is stopped to change blocks. It has a powerful friction feed. It is altogether the simplest in construction of any machine built and combines so many advantages that it is far superior to any machine on the market. We build shingle machines both horizontal and vertical. SIMPLE. CHEAP. DURABLE. If you want a good shingle machine try the "Boss" and you will be more than pleased. One 40 inch saw and one 24 inch collar with each machine.

We also Manufacture all kinds of High Grade Machinery for Saw and Shingle Mills. Write for Prices

MOWRY & SONS, Gravenhurst, Ontario

Long's Quality Machinery

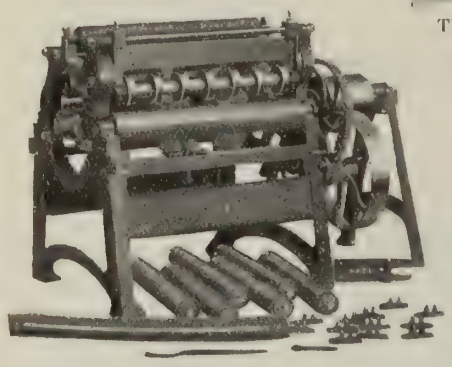
Here are a few machines which appeal to the practical millman.



Steel Carriages

This style built with 36-in., 40-in., 44-in., 48-in., 54-in., 60-in., 72-in., opening from saw line

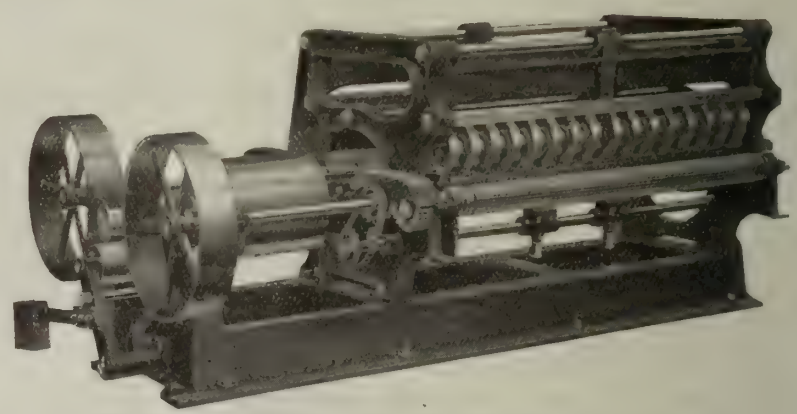
We have others. If you don't see what you want here, send us your inquiry.



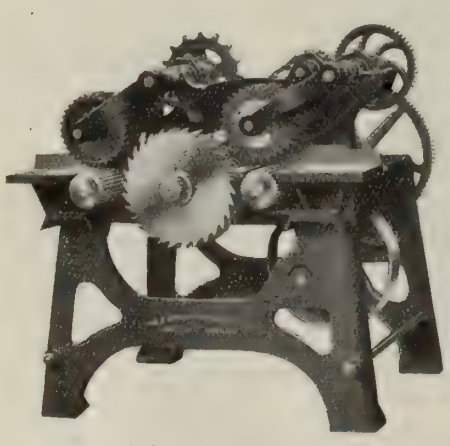
32-in. Edger

EDGERS

suitable for Sawmill of any Capacity



This style built 54-in. 60-in., 66-in., 72-in., 84-in., 96-in. between frames

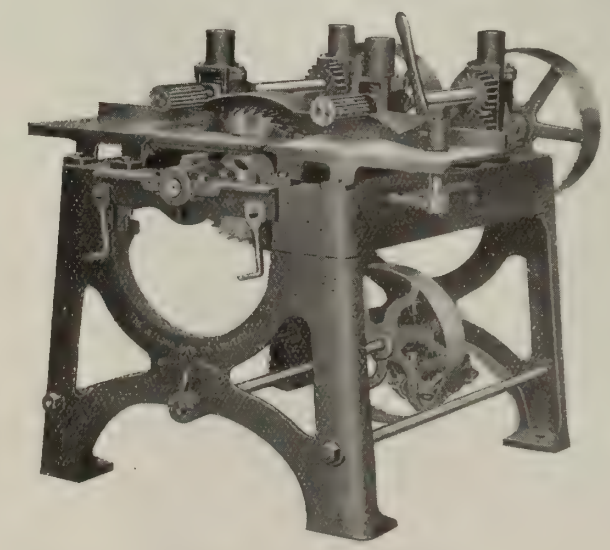


3 Saw Lath Bolter

Complete Mills of any Capacity

No. oo Portable Mill

Our entire attention is devoted to studying the needs of the sawmill trade. Our services are at your disposal.



Heavy Duty Lath Machine

Mill plans and specifications of complete mills furnished.

The E. LONG MANUFACTURING CO., LIMITED, Orillia, Ont.

AGENCIES:

MONTREAL—Williams & Wilson, Ltd.
WINNIPEG—Stuart Machinery Co., Ltd.
EDMONTON and CALGARY—Gorman, Clancey & Grindley, Ltd.
VANCOUVER—Robert Hamilton & Co.

Some Pages from our Catalogues

Every One Worth Reading

Since 1907 we have been publishing a new series of catalogues. These accurately describe and illustrate the line of Sawmill Machinery we now build.

They are printed in bulletin form. Each is descriptive of one machine or one style of machine only.

Which of these Shall we send you?

BULLWHEELS
CHAINS AND ACCESSORIES
LOG DECK MACHINERY
MEDIUM CARRIAGES
HEAVY CARRIAGES
CIRCULAR SAW FRAMES
BAND MILLS
EDGERS
CIRCULAR RESAWS
LATHMILLS AND BOLTERS
PLANERS AND MATCHERS
PORTABLE SAWMILLS
LIGHT CENTRE CRANK ENGINES
HEAVY SAWMILL ENGINES
McEWEN ENGINES
STEEL PLATE WORK

Mark with a cross the bulletins in this list you would like sent, or if you would like the complete set in the special binder cross out the lot and attach this sheet to your letterhead and send it to us. Do it to-day.

In this way you receive a bulletin that is easily handled or filed for reference. It describes only the machine you are interested in and this in a detailed way impossible in a general catalogue.

As our machines have changed in design to keep pace with changing sawmill conditions our bulletins have been printed to describe them. They illustrate our latest improvement in every line and are absolutely up to the minute.

In them we have endeavored to avoid exaggeration of any kind. The information they contain is accurate and trustworthy. Much of it is invaluable to the up-to-date mill man.

If you have any of our old catalogues on file destroy them now and ask us to send you our *latest* Sawmill Bulletins. A list of these is attached. We will send you individual copies or the complete set assembled in a handsome binder, just as you prefer.

Tear out this sheet and attach it to your letter head. We will do the rest.

The
Waterous Engine Works Co.
Limited

Brantford, Canada

Agencies: VANCOUVER, B. C.
WINNIPEG, MAN.
VALPARAISO, CHILI
BRISBANE, AUSTRALIA

$5,000,000.00

worth of mixed metals is what we market every year

PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines. Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

We solicit your patronage

HOYT METAL CO., Toronto, Canada

New York, N. Y. **London, England** **St. Louis, Mo.**

BATTS LIMITED

WEST TORONTO

MANUFACTURERS OF

Staved Columns
Veneered Doors
Newel Posts
Sashes - Flooring
Trim
Pine Doors and Frames
Turned Newel Posts and Balusters
Cypress Greenhouse Material

BATTS LIMITED

MANUFACTURERS

WEST TORONTO, ONT.

The J.C. McLaren Belting Co.
Limited

General Mill Supplies **MONTREAL**

H. Walters & Sons

Limited

Head Office and Factory HULL, CANADA

VANCOUVER, B.C.
Corner Powell and McLean Sts.

Branches:

WINNIPEG, MAN.
Corner Market and Louise Sts.

THE LARGEST FACTORY FOR LUMBERING TOOLS IN CANADA. :: :: ::

"Send for New Illustrated Catalogue"

Manufacturers of all kinds of

Saws, Axes, Axe Handles, Lumbering and Logging Tools, Machine Knives

Canada Lumberman & Wood Worker

Time is Money

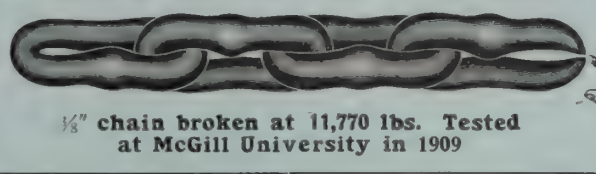
The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.



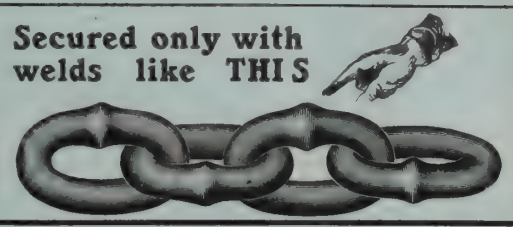
A Test Like THIS

⅛" chain broken at 11,770 lbs. Tested at McGill University in 1909

25% More Weld = 25% More Strength = 25% More Wear

Tested Steel Chain made at **St. Catharines, Ont.**
Sold by
McKinnon Chain Co.
BUFFALO, N.Y.

Secured only with welds like THIS



AROUND THE WORLD

In addition to its success in this country, Dick's Balata Belting is doing notable transmission service in every country on the globe. It is manufactured in Glasgow, has been on the market over 25 years, and has an unbeaten record for long service in hard places.

We are the exclusive Canadian Agents for Dick's Balata Belting.

For further details write for Catalog No. 17.

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
Steel Pulleys Saw Mill Supplies Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults

Montreal Toronto St. John, N. B. Winnipeg Calgary Vancouver 1

UNLINED LINEN FIRE HOSE (Circular Woven and Seamless)

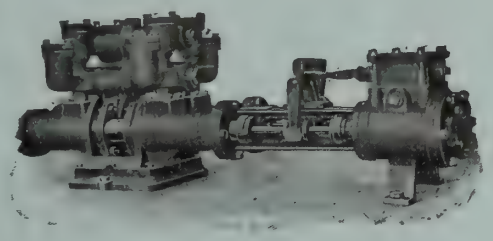
"Underwriters Best" Red and Blue Stripe

MADE to conform to the requirements of the Associated Factory Fire Insurance Companies, and is approved and accepted under every high-grade flax-hose specification.

GUARANTEED WATER PRESSURE 500 LBS. PER SQUARE INCH.

F. REDDAWAY & COMPANY
TORONTO SOLE MAKERS OF **MONTREAL**

"CAMEL HAIR" "CAMEL" BRAND TRADE MARK REG. BELTING



We Manufacture
Steam and Power Pumps, Condensers, Travelling Cranes, Etc.

The Smart-Turner Machine Co., Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

Alphabetical Index to Advertisers, page 64

The Steam Tension Band Mill

The steam tension band mill as we make it is entirely different from any other band mill made. Owing to the great success of this mill, many other manufacturers have added steam cylinders to their **standard** mills for operating the top guide and for raising and lowering the top wheel. Of course, these devices at their best are not all they ought to be, but the fact of their being there serves to emphasize the worth of the steam operated mill. Ours is the only band mill which has been **specially** designed from the beginning as a steam tension mill, and consequently the steam cylinders are placed where they should be, and work properly at all times, no matter what your boiler pressure or your sawing conditions.

The advantages of this mill are obvious—the time saved by having **both** the top guide and the upper wheel operated by steam is very considerable, while with our very sensitive steam tension, the saws are easily kept at exactly the right tension to cut perfect lumber, to say nothing of the longer life of the saws.

It costs you a little more to buy this mill because it costs us more to make it, but it saves you far more than the difference in cost in a very short time, and so it is worth more.

Built with 8 foot, 9 foot and 10 foot wheels.

May we send you our catalogue?

William Hamilton Co., Limited

PETERBOROUGH, ONTARIO

VIEW OF OUR MILL AT CACHE BAY, ONT.

CHOICE PINE

Lumber buyers who come face to face with the consuming public are to-day experiencing a demand for quality products that we anticipated a good many years ago.

Our first move in the production of Pine Lumber was the acquisition of a good supply of timber—not only a good quantity, but particularly a good quality, and the best proof we can offer you of our success in the selection of this kind of timber is found to-day in our

Norway or White Pine Lumber, Railroad and Structural Timbers, Flooring, Ceiling, Moulding, Siding, Cross-arms, etc.

Daily Capacity of Mill 190,000 feet of lumber, 65,000 pieces of lath, exclusive box boards and pickets.

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Winter will find you fully prepared —if you order now

Remember this—we still have an ample supply of that same high grade lumber that has given so much satisfaction to our customers this season.

Good dealers everywhere should stock up only with lumber that they **know** is right.

Long experience has taught us the best grades to select and you are always assured of getting the highest quality when ordering from us.

but you must order now, otherwise you are apt to be disappointed by late deliveries. In

White Pine
Quebec Spruce
and Hemlock

our stock is of the best and ready now for immediate shipment. We can dress or resaw to your order.

May we send you our Monthly Stock Sheet?

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 1200 Claremont Ave., MONTCLAIR, N.J. **Hope Chambers, OTTAWA, CAN., Head Office**

Timber Limits for Sale
on Georgian Bay

The undersigned offer for sale in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; Tug Scow and other Lumber Equipment, including boom chains, plows, sleighs, etc.

The Limits, part of which have recently been sold, include: 440 square miles of licensed and deeded Pine, Hemlock, Spruce, Birch and other timber. The licenses from the Ontario Government include all timbers and are not restricted for time. Government dues are as follows: Saw Logs, White Pine, $1.50 per M. ft., B.M. Saw Logs, Hemlock, Tamarac and other woods 75c. per M. ft. The timber is situated in the Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street. The Canadian Pacific, Canadian Northern and Grand Trunk Railways run through the limits, which makes some of the parcels offered for sale particularly desirable for small mill owners.

A circular giving full information, maps, terms and conditions of sale will be furnished upon application to

The Parry Sound Lumber Co., Limited

1315-20 Traders Bank Building, TORONTO, CANADA

RED GUM SAP

The Right Stock at the Right Price

We have been shipping Gum for years and know how it should be manufactured and piled, and have started operations on a tract of some of the finest timber ever put through a mill. Trees 60 ft. to the limbs.

Our facilities for handling your orders for straight or mixed cars are unequalled.

Plain and Quartered

May we quote you on your requirements?

HAMILTON H. SALMON & CO.

88 Wall Street, NEW YORK CITY

Branch Office: 71 South Street, Buffalo
Mr. Frank T. Sullivan, Manager

Yards: Buffalo, N.Y.,
North Tonawanda, N.Y., Allendale, Pa.

WHITE AND RED PINE

SCENE IN THE SHIPPING YARDS

"Pine that's Pine"

That's the kind of stock your customers want — high grade. That's the kind you get when you buy at Lumsden's Mills.

Quality and Capacity

The very highest grade stock that the choicest timber and modern methods of manufacture can produce, with every facility for quick shipment.

Write us your requirements

JOHN LUMSDEN, Lumsden's Mills, Quebec

Quincy Adams Lumber Co., Limited

MANUFACTURERS AND WHOLESALERS OF

White Pine, Birch, Spruce and Hemlock

Mills at
LONGFORD
KOSHEE
RAVENSWORTH

Toronto, Canada
51 Yonge Street

The Rideau Lumber Co., Limited

Trafalgar Building, Ottawa, Ont.

We offer the following, of 1911 Sawing

***Quality*—Dressing and Factory**

2 cars	5/4 x 4 and up	—	6/11 ft.	Average	7	in. wide
1 "	6/4 x "	—	"	"	7½	in. "
4 "	8/4 x "	—	"	"	8½	in. "
2 "	5/4 x 7	"	— 12/16 ft.	"	9	in. "
2 "	6/4 x	"	— "	"	9½	in. "
5 "	8/4 x	"	"	"	9⅝	in. "

***Quality*—Red Knot Dressing**

6 cars	6/4 x 8 and up	—	12/16 ft.	largely	8 in.
8 "	8/4 x "	—	"	"	"

JAS. PLAYFAIR D. L. WHITE

PLAYFAIR & WHITE

Manufacturers and
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Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

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WHOLESALE

Lumber, Ties, Pulpwood

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COMPLETE STOCK OF
Quebec Spruce and Pine Lumber
ALWAYS ON HAND

An exceptionally nice lot of 2″ Pine, well seasoned, for sale, also 1″, 2″, 3″ Spruce, Square and Waney Spruce and Cedar.

Correspondence Solicited. Room 4, Hochelaga Bank Building **Quebec, Que.**

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Limited

MANUFACTURERS OF

Lumber, Lath and Shingles

Offer at LOW FIGURE for QUICK sale:

80,000′ 2 x 4 & up 6/16′ No. 1 White Pine Mill Cull
20,000′ 2 x 4 & up 6/16′ No. 2 White Pine Mill Cull
18,000′ 1 x 4 & up 6/16′ Log Run, Dead Culls out White Birch
125,000 pcs. 1½ x ⅜ x 32″ Mill Run Hemlock Lath

All of above, shipment G. T. R. from Golden Lake, Ontario

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THE trend of trade is now towards our **CUTLER** Mills, when customers want anything at **BAY** ports for water or rail delivery, and our **LUMBER** is selling itself by repeat orders from any **COMPANY** to whom we make a shipment. Our stock is **LIMITED** but we still have a goodly quantity to dispose of at prices worth while considering.

DON'T BUY TILL
YOU GET OUR
PRICES

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34 Victoria Street, Toronto
are Selling Agents

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Manufacturers

LUMBER, LATH, SHINGLES, TIMBER, POLES and POSTS

We have for quick shipment

Hemlock Ties

Mill and Yard
OPEONGO, ONT.

Head Office
OTTAWA, ONT.

Send your enquiries to our Head Office

The McLennan Lumber Co., Limited

Everything in Lumber
Rough and Dressed
Wholesale and Retail

WRITE US FOR PARTICULARS

21 Dorchester Street West, MONTREAL, QUE.

The Hurdman Lumber Co.

OTTAWA, CANADA Limited

EASTERN

Pine, Spruce, Hemlock, Hardwoods, Timber, Lath and Shingles

WESTERN

British Columbia Timber

at Lowest Prices and any Sizes.

We are open to BUY cuts of Pine; Spruce; Hemlock; Basswood and Ash; and will be pleased to hear from manufacturers having anything to dispose of for cash, will also make contracts now for Basswood to be taken out this winter.

Pine, Spruce, Hemlock, Lath, Birch, Maple

Good Stocks. Prompt Shipments.

INQUIRE OF

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Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles

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Williams Lumber Company

Wholesale Dealers in

White and Red Pine, Spruce and Lath

ROUGH OR DRESSED

For 5, 6, and 8/4 shipping cull stock strips, box out.
For 5, 6, and 8/4 fine dressing strips.
For 5, 6, and 8/4 x 4 and up shipping cull shorts.
For 5, 6, and 8/4 x 8 and up shipping cull sidings, 10 in avge.

Write us before placing your orders

18 CENTRAL CHAMBERS - OTTAWA, ONT.

Edward Hines Lumber Co.

(BRANCH OFFICE)

Parry Sound, Ont.

All grades of

WHITE PINE

and

Norway Dimension Bill Stuffs

WHITE and RED PINE LATH

WILLIAM H. BROMLEY

Wholesale Lumber

Aux Sable River Forest Reserve Timber Produces Best Lumber in Ontario.

Every lumber dealer and consumer in Western Ontario, Buffalo, Detroit, Central New York and Montreal knows what excellent lumber is produced from Playfair & White's mills at Midland, Ont. I can offer you from that point, all sizes of White Pine and Norway Pine; any quantity of the choicest lumber in the Georgian Bay district. These mills will commence sawing about May 15th.

SPECIAL:—The best block of Basswood in Ontario. estimated 2,000,000 ft. I am prepared to offer, sawn to any size required.

Other stocks of Pine, Hemlock and Spruce at Pembroke, Ottawa and Collingwood.

Quotations promptly given and enquiries solicited

Pembroke - - Ontario

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OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

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SPRUCE

13 Foot and 16 Foot

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And all kinds of SASH FACTORY and PLANING MILL GOODS.

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We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

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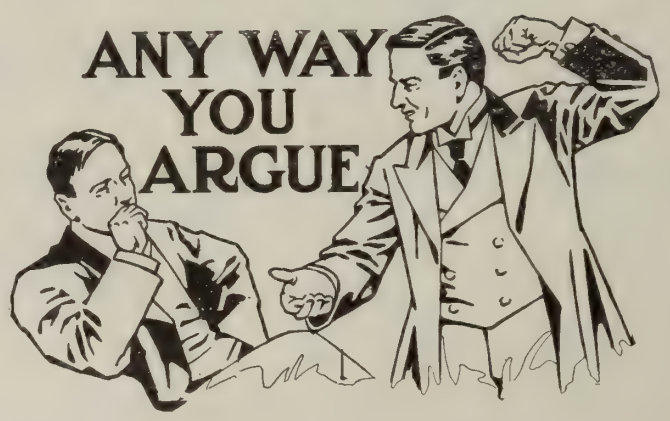

The only goods of any use to the wise business man are the goods that SELL RIGHT.

You might make profit on any sort of goods at all, but it is the goods that SELL RIGHT that build up your business.

OUR

HEMLOCK, PINE and HARDWOOD

SELLS RIGHT

because it is made from the right kind of timber, is graded right, and is sold at the right price. We dress and size all our Hemlock Lumber—we help you to save on your freight—you know what that means.

We specialize in car lots— Write us your requirements

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Successors to

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Mills at Thessalon Ont.

We Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

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LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.

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Write, Telegraph or Telephone your orders

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LIMITED

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LIMITED
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Every Description of
DOUGLAS FIR,
RED CEDAR, SPRUCE,
HEMLOCK, LARCH and
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RED CEDAR SHINGLES

Heavy Construction Timbers a Specialty
Lengths up to 110 ft.
Try a car of our Extra Quality XXX RED CEDAR SHINGLES
Rail and Water Shipments.

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PRESTON ONT.
FINE BANK OFFICE COURT HOUSE & DRUG STORE FITTINGS.
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

WANTED
100 m ft. clear hard Maple axles 4 in. x 5 in.-6ft. and 12 ft. long. Also all thicknesses Common and Better Birch.

For Sale
All grades and thicknesses of Cherry and Mahogany lumber. Also Mahogany, Circassian Walnut and Quartered White Oak veneer all thicknesses. Please let us hear from you.

WARREN ROSS LUMBER CO.
Jamestown, N. Y.

SPECIALTIES
Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie
Pine and Hardwood
Lumber
Lath and Shingles
North Tonawanda, N. Y.

"Well Bought is Half Sold"

STOCK OFFER;-

2 cars 1 x 8 and up No. 3 shop and better W. P.
3 " 6 4 No. 1 and No. 2 shop. "
2 " 6 4 sash cuts "
4 " 6 4 x 10 Select Mill Run "
4 " 2 x 6 Common and Dressing "

The above all 1911 cut F.O.B. Byng Inlet.

We can ship promptly.

Let us have the pleasure of quoting.

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine and Hemlock Lumber

730 Traders Bank Building, Toronto, Ont.

Mills: Byng Inlet, Ont.

We are Buyers of
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Veneers (3 or more ply) Handles (all descriptions)
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Saddle Tank Locomotives
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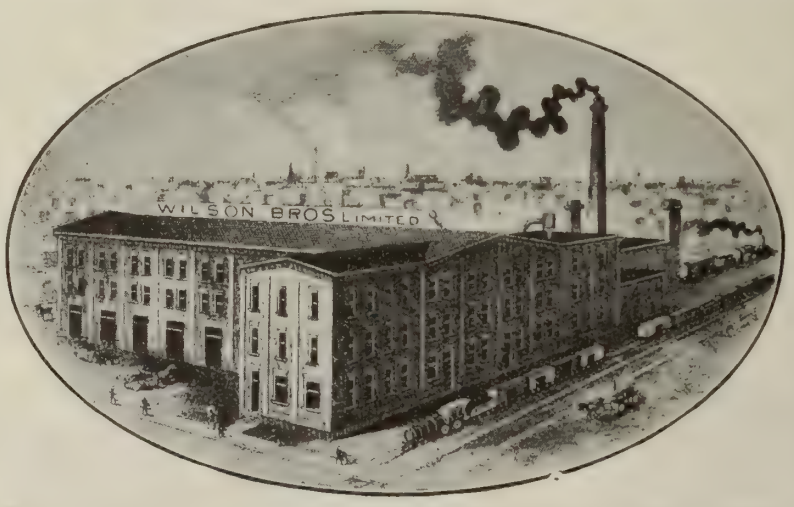
Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office: — Pacific Building, VANCOUVER, B. C.**



This illustration does not show you the largest factory in the world. But it does show you a plant that is unusually well equipped—where only experienced workmen are employed—where the highest grade materials are used—The home of

Wilson Bros., Limited, Flooring

The fact that we are one of the oldest and largest manufacturers of **Maple Flooring** in this country should give you confidence to specify and buy not only **Wilson Bros., Limited, Maple Flooring,** but also **our Beech, Birch** and **Oak Flooring. Wilson Bros., Limited, Flooring** means a carefully kiln dried and manufactured article. It is straightened, hollow-backed, bored, end matched, steel polished and bundled.

Wilson Brothers, Limited

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Wm. Milne & Son, Ltd.

Manufacturers:

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.

Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

Spanish Mill

White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel shipment only.

Casey-Shaw Lumber Co. Limited

Sudbury, Ontario

Manufacturers of

Lumber and Lath

Planing Mill Work

SAW MILLS
Long Lake, Ont. and Blezard, Ont.

GENERAL OFFICE
Sudbury, Ont.

Lumber Wanted

We want 1″ Crating Spruce and 1″ Elm Crating. Write us telling what you have to offer.

The Glengarry Lumber Co., Limited

Berlin, Ontario

TORONTO WHOLESALERS

Full Stock Dry Pine and Hemlock

BILLS IN PINE AND HEMLOCK

Cut to Order

NEW TELEPHONE ADELAIDE 1783

The Fesserton Timber Co., Limited

15 Toronto St., TORONTO

Mills at FESSERTON, ONT.

JOHN DONOGH & CO.

Wholesale Dealers

Hemlock **Spruce**
White Pine **Red Pine**

Full stock in all grades and sizes

B.C. Cedar Shingles - N.B. Cedar Shingles

WRITE US

1205 TRADERS BANK BUILDING, TORONTO

C. A. Larkin Lumber Co.

Limited

We have an exceptionally well assorted stock of Dry White Pine, but wish to call particular attention to our select Mill Run 5/4" x 4, 5, 6, 8 & 10" and 6/4 x 10."

If you want silo stock, we have it; 2 x 4, 2 x 6, 2 x 8, & 2 x 10 10/16 Mill Run Norway.

Toronto :: Canada

Do You Want a Salesman?

¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

LEAK & CO., LIMITED

18 Aberdeen Chambers

TORONTO, ONT.

We are in the market for Hemlock, Spruce and Hardwoods, also No. 1, 2 3 Lath.

Send us list of anything you have to offer.

Spears & Lauder

OFFER

One Million feet, Birch, Basswood, Ash, Elm and Maple

now being cut from exceptionally choice logs.

Also during the Summer months 2½ million feet of hemlock.

LET US QUOTE YOU ON YOUR REQUIREMENTS.

Head Office: 501 Kent Bldg., - TORONTO

The

Elgie & Jarvis Lumber Co.

Limited

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We are in the market for

Stocks of

Hemlock Lumber

For quick sale High Class Stock of **Pine, Spruce, Birch, Maple, Ash, Cypress.**

Send us your inquiries. Stock and price right.

Special:—

3" Spruce 8/10
3" Soft Elm "
1" Black Ash "

C. G. ANDERSON LUMBER CO.

Manning Chambers, TORONTO

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Established 1873

GILLIES BROS. Limited

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Manufacturers of

WHITE PINE

Cedar Shingles and Railway Ties

RED PINE, SPRUCE, HEMLOCK, CEDAR

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CAPACITY 40,000,000

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Waubaushene, Ontario

Manufacturers of High Grade

Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

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The

Victoria Harbor Lumber Company Limited

Manufacturers of **Lumber, Lath and Shingles**

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Modern Methods Do It All

Pine
Hemlock
Spruce
Hard-
woods
Rough
and
Dressed

We
make
a
Specialty
of
Long
Timbers

Fassett Lumber Co.—Loading Logs on Cars for the Mill

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FASSETT, QUEBEC

Josiah Ross Manufacturing Company

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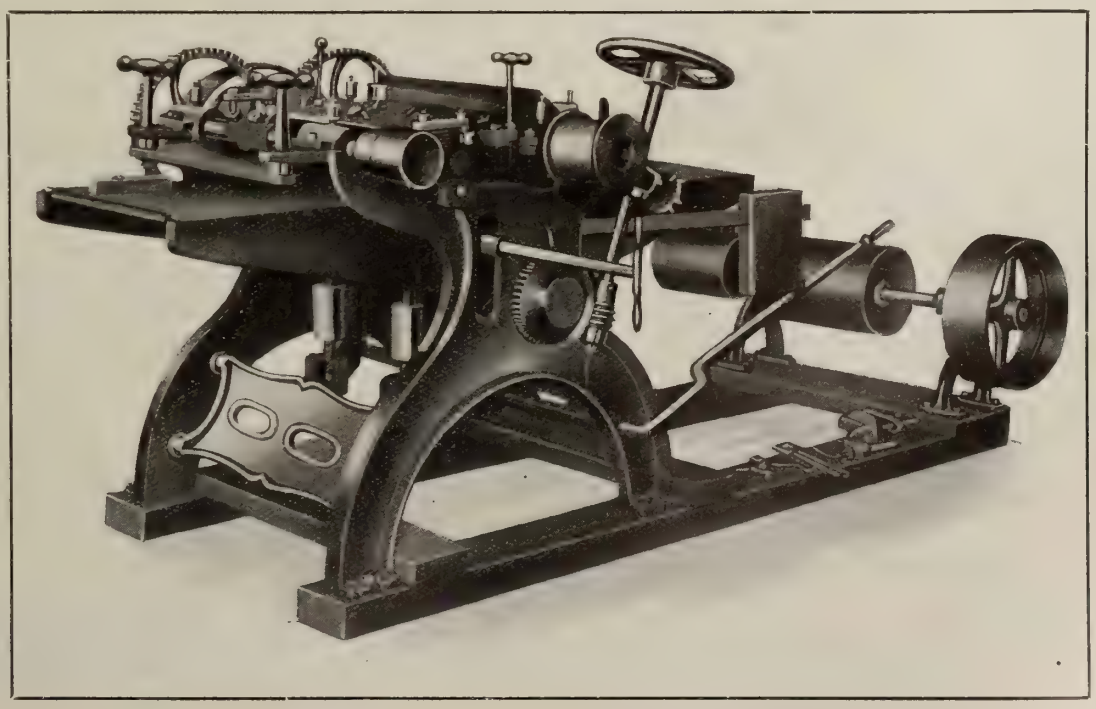
MAKE THE ONLY

Little Giant
Planer
Matcher
and Moulder

for the weight, efficiency and money, **$180.00.**

All Canadian Orders good as gold.



FOR QUICK SHIPMENT

We offer the following stock, subject to prior sale—All Dry Stock:

A few cars left of:

5/4 x 6/8/10 No. 1 and 2, Barn
6/4 x 6/8/10 No. 1 and 2, Barn
200M 1″, 1½″ and 2″ x 12—12/16 Spruce
100M 3 x 10—10/16 Spruce
1″ x 4″, 5″ and 6″ No. 1 and 2, Barn
1½″ x 4″, 6″ 8″ x 10″ No. 2, Barn and Better

From Small Logs

1″, 1¼ and 2 x 4,—10/16′ Spruce, rough or dressed
“ “ 2 x 5, “ “ “
“ “ 2 x 6, “ “ “
“ “ 2 x 7, “ “ “
“ “ 2 x 8, “ “ “

1″, 1¼ and 2 x 10,—10 16′ Spruce, rough or dressed
“ “ 2 x 12, “ “ “

A choice lot of 1″ Ash and winter sawn 1″ Basswood; also Birch Flooring in all grades and thicknesses.

1 x 4/up, 6/11′ Mill Run Hemlock, Mill Culls out.
1 x 4/5″, 12/16′ “ “ “ “ “ “
1 x 4/6″, 12/16′ “ “ “ “ “ “
2 x 4/up, 12/16′ “ “ “ “ “ “

2 x 6, 7, 9 & 11″, 12/16′ Mill Run Hemlock, Mill Culls Out
3 x 8, 10 & 12″, 12/16′ “ “ “ “ “
Also Log Run Hemlock, Dead Culls out.
Scant 2 x 6, 8 and 10″, 6/16′

Send us your inquiries. We can supply you all your wants in Pine.

DRESSED LUMBER OUR SPECIALTY

Write, wire or 'phone us for prices before placing your orders.

W. C. Edwards & Co., Limited

Ottawa, Ont.

Mills at Ottawa and Rockland **Planing Mills and Factories at Ottawa**

“EVERYTHING IN LUMBER”

Why not make 1912 the most profitable saw year in your history?

ATKINS STERLING BAND SAWS

Made in Canada

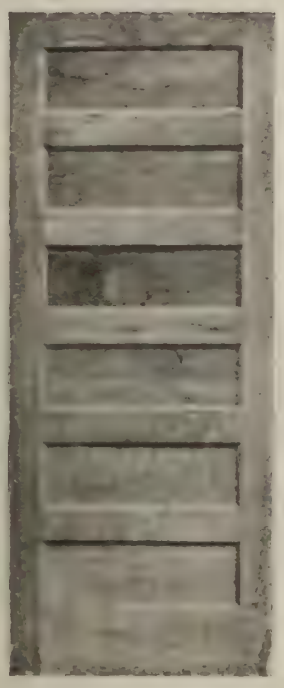
THESE Saws are celebrated on account of their exceedingly tough temper and generally scientific construction. They will stand up to their work longer under the most trying conditions. You will find fewer cracks in ATKINS BAND SAWS than any other and they will hold their teeth and points remarkably. Why not place a trial order and make us prove these statements.

Write to-day

E. C. ATKINS & CO., Makers of STERLING SAWS HAMILTON, ONT.

Vancouver Branch, No. 109 Powell Street, **U. S. Factory, Indianapolis, Ind.**

Dealers Looking for BIG PROFITS and High Grade Quality Doors



cannot afford to overlook the advantages of buying in carload lots when you are assured regular mill run stock of the quality and workmanship we offer. This is particularly true of the special offer we are making right now on carload lots.

WE ARE THE

Biggest Manufacturers of Doors in Canada

A DOOR A MINUTE IS OUR CAPACITY

GET BUSY AND INVESTIGATE

Estate James Davidson - Ottawa, Ontario

GARLOCK PACKINGS

Garlock Regular Rings

For all general purposes outside of high pressure work. This Packing is a special grade thoroughly lubricated with the celebrated "Garlock" compound, and is the perfected result of over thirty years experience in manufacturing fibrous Packings.

Garlock Square Duck Packing

Made of good quality Cotton Duck and friction for cold water.

Garlock High Pressure Gaskets

Absolutely heat proof, will not vulcanize or blow out under any steam pressure, being made of long fibre Asbestos Brass Wire Insertion.

Garlock Red Sheet Packing

Made of high grade Rubber compounded in such a way as to give it great strength and reliability.

This Packing has established wide reputation on its own merits.

Garlock Cloth Insertion Sheet

Used on cold and warm water pipes. Is unexcelled in pliability, smoothness of finish and strength of Cloth Insertion.

Garlock Rubber Valves

Specially made to meet specific conditions—absolutely unaffected by oils.

Before placing your next order for supplies get our prices on Leather, Rubber and Canvas Belts, Hose, Brass Valves, Babbitt Metals, Saw Blades, Files, Emery Wheels, etc. Write for catalogue.

THE GARLOCK PACKING CO.

Head Office and Factory: HAMILTON, ONT.

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E. H. Heaps & Co., Ltd.

Lumber, Shingles, Doors, Mouldings, Finish, etc.

Specialties: AA1 BRAND HIGH GRADE SHINGLES
LONG FIR TIMBER

Mills at
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Head Office: 445 Hastings Street West
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FERNIE, B. C.

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Rough and Dressed Lumber

Tarmarac, Spruce and Cedar

Fence Posts, Telephone and Telegraph Poles

Moulding in Stock or Made to Order

A. McDOUGALL, President

ASH BASSWOOD CHESTNUT CHERRY COTTON

BUCKEYE CYPRESS MAHOGANY

Need any Oak?
Need any Poplar?
Need any Chestnut?

OUR SPECIALTY—The supplying of high class lumber—at right prices.

Shipment direct from mill—good grades.

YOU CAN'T AFFORD to manufacture Oak Flooring when you can buy it—ready to lay—at our prices.

CAN MAKE PROMPT DELIVERIES

THE F. T. PEITCH CO.,

CLEVELAND, OHIO

NWOOD GUM POPLAR SYCAMORE

PLAIN AND QUARTERED OAK YELLOW PINE

Pine

Selects
Shops
Commons
and
Mouldings

THE HALL MARK OF QUALITY

Larch

Timbers
Yard Stock
Clears
and
Mouldings

The East Kootenay Lumber Co. Limited

Head Office: JAFFRAY, B.C.
Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

For low prices and prompt shipment of

Yellow Pine Timbers
Short Leaf Finish
Chestnut --- Oak --- Ash
Cypress
New Brunswick Shingles

TRY

Fred S. Morse Lumber Co.

Box 1600 SPRINGFIELD, MASS.

Dry Lumber For Sale

View of Saw Mills, Pembroke, Ont.

White and Red Pine, Spruce, etc.

100,000 ft.	5/4 x 4/7	x 12/16	S.C.W.P.
200,000 ft.	6/4 x 4/7	x 12/16	" "
100,000 ft.	1 x 8 & up	x 12/16	" "
100,000 ft.	5/4 x 8 & up	x 12/16	" "
200,000 ft.	6/4 x 8 & up	x 12/16	" "
200,000 ft.	2 x 8 & up	x 12/16	" "

(All Box Out)

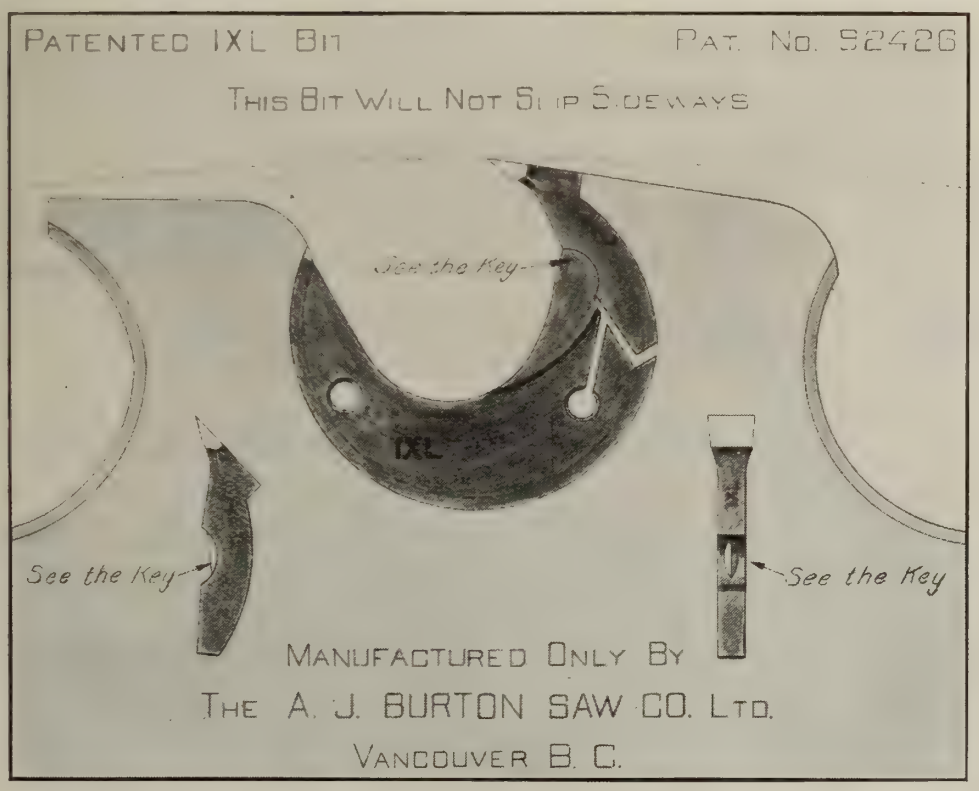
ROUGH OR DRESSED

Fast Feed Planing Mill in Connection.

Send us your enquiries

The Colonial Lumber Co., Ltd.

Pembroke, Ont.



Our Inserted Saws are Fitted with our Patent I.X.L. Bits and Shanks, warranted not to slip sideways, and to cut free and easy, and have no equal in hardwood or any other timber.

Saws

Band, Gang, Solid and Inserted Tooth Circulars, Bits and Shanks

Carried in Stock at our Ottawa Branch. Special Attention given to all Saw Repair Work.

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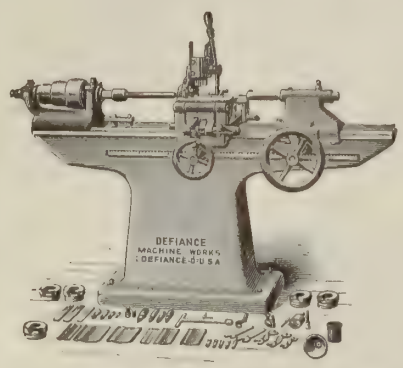

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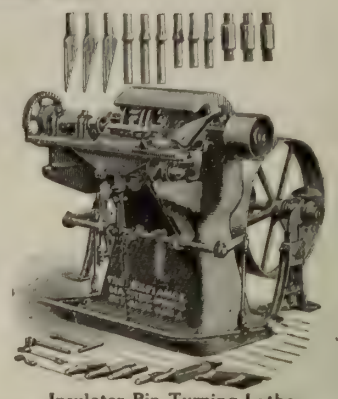
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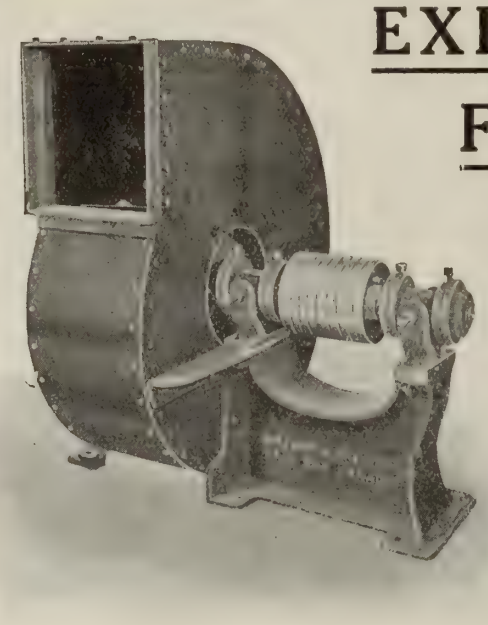

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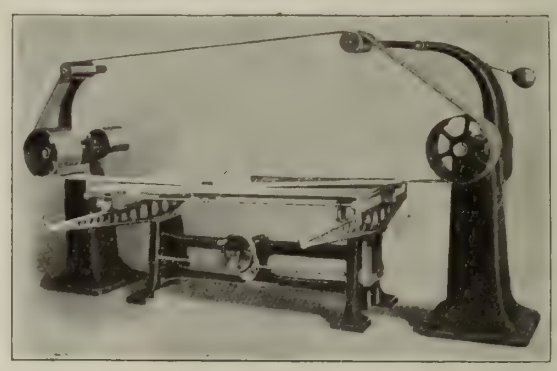
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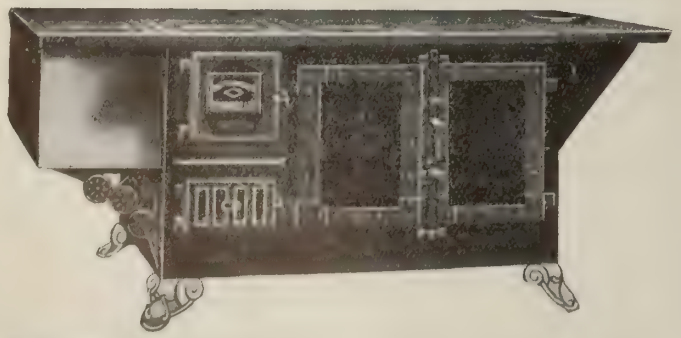

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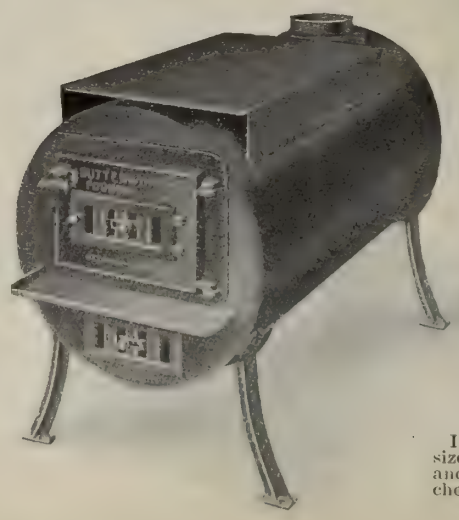
In three sizes, 36, 42, and 48 inches long.

Butterworth Foundry, Limited Ottawa, Canada.

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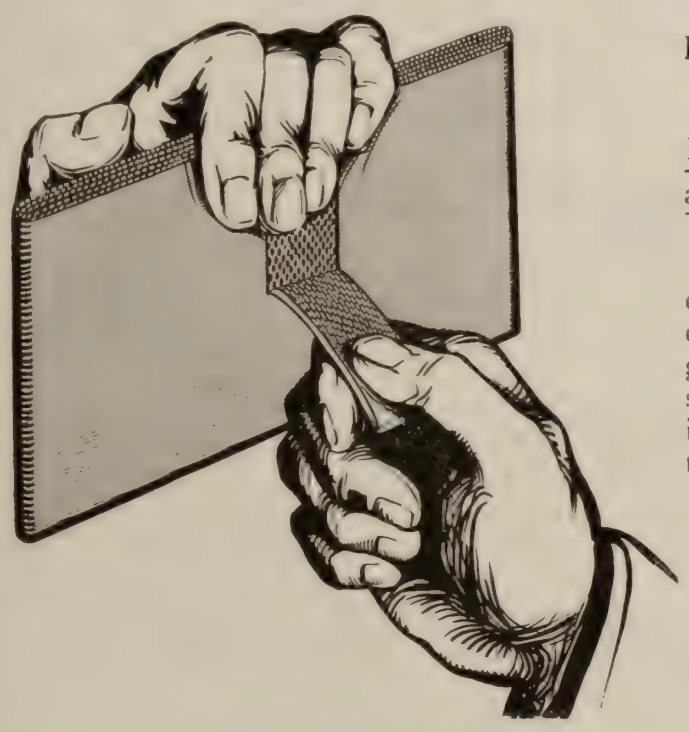

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A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 32 Toronto, October 1, 1912 No. 19

The Canadian Forestry Convention

The annual convention of the Canadian Forestry Association, which was held recently at Ottawa, was the 14th that has taken place since the formation of the association and it might have been imagined that it would prove in some respects a repetition of former meetings. One has grown to expect that forestry conventions will result in the discussion of many important theories and the expression of views pro. and con. upon the different points at issue, but very little in the way of definite practical results. Of late years this has, however, been less noticeable, and the forestry movement has apparently developed until it has commenced to result in really practical reforms.

The meeting held at Victoria early in September was particularly notable in this regard. In the first place, it was characterized, more than anything else, by frequent discussions of actual measures which have been brought into effect by the government of British Columbia for the preservation of its forest resources and the proper exploitation of its lumber products. The meeting was notable also on account of the large number of practical foresters and lumbermen who were in attendance and who took an active interest in its proceedings. Men from all parts of Canada who are responsible for the administration of the Crown lands in the various provinces were there and explained the results of their efforts. Prominent lumbermen and foresters from the United States were also present. Every one was greatly impressed with the progress which has been made in British Columbia, in the direction of working out and putting into practice, a forestry policy which is evidently expected to result in the preservation of British Columbia's timber wealth for all time to come and secure from it a revenue much in excess of what was expected under a policy which would have brought about the exhaustion of the timber resources within a generation or two. The new forestry policy of the government of British Columbia was freely commended and spoken of as one of the most enlightened policies for the preservation of forest resources that is to be found anywhere in the world to-day.

One of the most interesting and important announcements made at the convention was the statement by Hon. W. R. Ross that the government of British Columbia intended to establish a school of forestry in connection with the new university of British Columbia. The idea of preparing trained foresters for the practice of the profession of forest or logging engineering is of comparatively recent development in the United States and Canada. The movement has made much progress of late years and the fact that British Columbia with its wonderful forest resources intends to establish a school for the education of men of this class, shows that the government has decided upon a far-reaching policy, the goal of which is the complete exploitation of the forest resources of the province, together with their preservation for all future generations.

It would be impossible to consider in detail the numerous interesting and commendable features of this important convention. Practical subjects of interest to lumbermen were discussed at much length and the question of the organization of the forest service for British Columbia was given much attention. Such problems as the prevention of forest fires, the avoidance of waste in lumbering operations, burning of slash during logging, the prevention of the use for agricultural purposes of land only fit for timber growing, the extermination of the fake settler and other questions which are uppermost in the minds of lumbermen, were exhaustively discussed. The result of the discussion of the problem of fire prevention was a general agreement that much progress had been made during the past few years and that, in British Columbia particularly, an excellent public opinion was being developed which would go far towards preventing future serious forest fires.

There once were a good many people who scoffed at the very idea of conservation and forestry. To-day the tables have been turned, and the Canadian Forestry Association has been one of the most important factors in bringing about the change. By the holding of such conventions and by the co-operation of the press in spreading the views expressed, the chief work in connection with the forestry idea has been successfully driven home into the minds of the public.

Practical Methods of Selling Lumber

An unusually interesting sale of timber is now in progress in the United States, which indicates more clearly than anything else, the benefits which are being reaped by the public and also by the lumbering industry, as a result of the work of the United States forest service. The situation is one which indicates in a most satisfactory manner that the forestry movement is securing definite and practical results.

The chief forester of the United States is at present in San Francisco making final arrangements under which a Californio lumbering company will purchase 800 million feet of timber in Sierra national forest. The timber has already been awarded, after public advertisement, to the highest bidder, but under the terms of the advertisement the final signing of the contract will not take place until the company has been shown on the ground what timber the Government will reserve from cutting in order to preserve good forest conditions and provide for reproduction.

The company will be allowed its full 800 million feet, but naturally it will not be allowed to cut clean . As a rule the Forest Service reserves something like one-third of the forest stand in applying forestry on Government holdings. A marking board made up of one man sent from Washington, one from the District office in San Francisco, and the local Forest Supervisor will carefully mark a sample area, to show how the restrictions on cutting will be applied. Representatives of the company will then go over this area, after which Chief Forester Graves and his assistants will, it is expected, make final arrangements with the company in San Francisco, and the contract of sale will be signed.

"The Forest Service," said Mr. Graves in speaking of this sale,

"has received a number of inquiries whether in selling so much timber to a single purchaser the Government may not be opening the way to a monopolistic control of local lumber markets. Other correspondents are disturbed lest the sale prove a bad bargain for the Government through the rise in value of the timber in the twenty-two years during which the company will cut.

"Such large and long-time sales of National Forest timber as that to the California company are a new development in the Forest Service. Great bodies of mature but inaccessible timber can be put on the market only if sale contracts are let on terms which will justify a very heavy initial investment in transportation facilities. In entering into such contracts, however, special safeguards to protect the public against monopoly and to prevent an undue speculative profit to the purchaser are employed.

"The National Forests contain, in all, the equivalent of nearly 600 billion feet of timber now of merchantable size, besides young growth for future harvest. Because of its remoteness from market and the wild, mountainous country, without transportation facilities, in which most of it lies, only a small percentage can now be sold on any terms. Most of it would cost more to get it out than it would bring. The sale of less than one-fifth of one per cent. of the total supply to one company leaves plenty of room for competition by other companies.

"The timber which has been sold to the California company lies well back in the Sierre Nevada Mountains and will require the construction of 70 miles of standard-guage railroad to open up the area. Since this road will also open up other National Forest timber and will be a common carrier, it creates another safeguard against monopoly. The company is given a cutting period of twenty-two years to remove the timber, besides an additional two years for the construction of logging and manufacturing facilities. The sale was publicly advertised for six months in order to give an opportunity for all who wished to compete for the contract to make bids, as is done in all large National Forest sales.

"No business organization would undertake the heavy investment necessary in such cases unless the handling of a large body of timber and a sufficient period in which to remove it under practicable logging conditions are assured. The great difficulty in making such long-term sales is to establish a price which will be fair to both sides. No one can foresee future conditions well enough to know what stumpage will be worth ten, fifteen, or twenty years hence.

"Consequently the terms of sale provide for the readjustment of stumpage prices every five years. The basis for fixing the prices will be, in each case, the prices of manufactured lumber in the markets where the timber is sold during the preceding two years.

"For several years the Forest Service has been selling in the neighborhood of a million dollars worth of National Forest stumpage per year, but this combined with what is cut for free use is only about one-eighth of what might be cut without reducing the permanent stock of the forests. The supply will be kept up through growth. By making long-term sales it will be possible greatly to increase the amount available for present needs of the timber consuming public, without endangering future supplies through overcutting. It will always remain true, however, that vastly the greater part of the timber sales will be to small purchasers, who are favored whenever possible. Monopoly is impossible as long as the door is kept open for such purchasers. Out of over 5,600 sales made in the fiscal year 1911, about forty were for over $5,000 worth of timber to a single purchaser."

The Pulpwood Export Situation

Owners of pulpwood limits upon private lands in the various provinces of Canada have been greatly interested during the past few weeks in a report appearing in the daily press and which originated in an Ottawa despatch to the Toronto Globe. The report, which stated that the Canadian Manufacturers' Association intended to press the government for an act prohibiting export of pulpwood from any province of Canada, was as follows:

Ottawa, Sept. 19.—Legislation which will absolutely put a stop to the exportation of pulpwood from Canada to the United States is being urged on the government by the Canadian Manufacturers' Association.

It is learned from an absolutely reliable source that a big delegation, composed of leading members of the association, will wait upon Premier Borden shortly, and place the matter fully before him. It will be pointed out that, with the rapidly increasing consumption and demand from the United States, and the corresponding growth of the export of raw pulp from Canada across the line, Canada's forests will soon become depleted, while the profits which should accrue to Canadians by paper manufacture in Canada, are going into the pockets of Americans.

Should the government introduce legislation which would prohibit the export to the United States from any province in the Dominion, of raw pulpwood, the United States would be compelled to buy the manufactured paper here, and the result would be the opening up of a large number of big paper manufacturing industries throughout the Dominion, which would employ many thousands of workmen, pay millions annually in wages, and give Canada prominence as a paper manufacturing country.

Notwithstanding that Ontario, New Brunswick and Quebec have taken steps through the medium of provincial legislation to practically put a stop to, or place a restriction upon the export of pulpwood cut on Crown lands to the States, millions of cords of excellent pulp timber are annually being shipped to American centres from private owned lands, chiefly from Quebec. The wood is manufactured in American mills and the benefit which Canada should derive goes to the pockets of the workingman and manufacturers of the United States.

The Canadian Manufacturers' Association hopes to prevent the export from private-owned property through a federal enactment, which would be universal. The question is an important one, and it is thought likely that it will be found among the number of big matters which Parliament will take up during the coming session.

The above report seems to have been the product of the imagination of some newspaper correspondent or some representative of the paper trade in Canada who is interested in securing cheap paper and encouraging the manufacture of paper in Canada. There has been a great deal of discussion of this particular subject during the last year or two and there are many who would like to see an act of this nature put into effect. Nevertheless, the question is one which cannot be settled off-hand by any government. The interests involved are much too important and those whose interests would be sacrificed are far too numerous, for the question to be settled without the most exhaustive enquiry into the necessity for the legislation and its probable results.

All the owners of private lands in Quebec, for instance, upon which pulpwood is growing, would lose heavily by any such law. They are to-day able to export to the United States large quantities of pulpwood. They find in this way a very ready market for their products and their main source of revenue would be immediately destroyed if such an act were passed.

The grounds upon which the request for a prohibitive duty are based are very generally understood. Briefly, they are, that if no pulpwood were exported from Canada, many large mills would be established to manufacture paper and export it to the United States. In theory this argument seems fairly reasonable and in practice it might work out very nearly as indicated. There are many considerations, however, which might interfere with this result. The chief objection to such a prohibition is that most of the benefits to be expected from it are practically certain to come about in the very near future without any interference. The paper manufacturing industry in Canada is growing very rapidly. The prohibition of the export of pulpwood from Crown lands is preserving an enormous supply of pulpwood for future generations. At the same time the export of pulpwood from private lands permits Canadians to profit from the excellent markets of the United States.

Enquiries which have been made since the appearance of the above report indicate that it is not founded very definitely upon fact. The Canadian Manufacturers' Association, for instance, through their general secretary, Mr. Murray, have stated that they know absolutely nothing about the proposed deputation to Ottawa. Mr. Murray's words, as reported in the press are as follows: "I know absolutely

nothing of it, and if it is so, the paper interests are doing it off their own bat and entirely independent of this organization. In fact I am very much surprised if they are. I doubt if it is true."

Many curious arguments have been based upon the alleged fact that the prohibition of the export of pulpwood from Crown lands has resulted in a decrease in the exports of pulpwood from Canada. The facts of the case, however, do not seem to warrant these arguments. Take the province of Quebec, for instance. During the first six months of 1912, the exports of pulpwood from that province amounted in value to $456,089, whereas during the corresponding period of 1911, the value was $318,067. In 1910 during the corresponding period, the total was very large, namely, $580,596, as a result of the expectation that the new prohibitive law would prevent exports after that year. Operators, accordingly, took out all they could, in a hurry. During the first six months of 1909, the exports of pulpwood from Quebec were valued at only $230,757. Unquestionably, therefore, there has been a great increase in the exports of pulpwood from the province of Quebec in spite of the act confining exports to pulpwood produced from private lands. The problem is one of great intricacy and those who are closely interested will do well to discount any occasional reports to the effect that the government intends to enact a general prohibitive law. The government would be certain to give the question lengthy and minute study before taking any such radical step.

Editorial Short Lengths for Busy Readers

Exports from St. John, N.B., to U. S. points for fiscal year ending 30th June, 1912, were valued as follows: staves $3,117.28; telegraph poles $117.50; laths $200,082.22; fire wood $502.50; lumber $652,022.10; pulp wood $127,030.46; wood pulp $388,559.92; spruce piling $11,804.90; pine boards $24,143.28; ships' knees $804.45; tree roots $158.00; shingles $46,307.23; kindling wood $202.50.

United States Consul General J. H. Snodgrass, of Moscow, Russia, in a recent report, says that American manufacturers of sawmill and woodworking machinery will be interested in the intense activity that prevails in the region directly adjoining the Ural Mountains, where promoters have turned their attention toward the unexploited riches of the place, and recently a number of companies have decided to work the immense timber areas on a share-holding basis. Many of the old firms have become shareholding companies, and others are forming every day. It is intended to develop the timber trade by the employment of up-to-date machinery. There is also a proposition to construct a rail line to convey to the coast the timber from the lands belonging to the Government in the Province of Turinsk.

The Hon. Arthur C. Hastings, president of the American Paper and Pulp Association, recently made a comparison of American and Canadian competition, as a result of a visit he has paid to Canada. On the question of paper, he says that the answer to the argument as to whether Canada can manufacture cheaper than the United States is the fact that there have been built, and are in course of construction in Canada, mills to produce in the coming year one grade of paper alone at the rate of something like 1,000 tons a day. It is not a question, he adds, of whether that amount of paper could be manufactured cheaper in Canada than in the United States, but it is going to be manufactured and it is going to go into the United States market to the detriment of the American manufacturers, as well as the citizens and taxpayers. Pursuing the same policy in other lines, it would soon drive United States manufacturing industries to some other country. Mr. Hastings has come to the conclusion that the competition which the United States is about to experience with Canadian paper manufacturers "is real" and "not imaginary."

The report of the Provincial Waterways Commission of the Province of Quebec, which has recently been submitted to the Department of Lands and Forests, contains an interesting reference to the question of controlling the waters of the Chaudiere River. Considerable difficulty has been experienced during the past few years on account of the excessive thickness of the ice coming down the river in the spring and causing serious damage. One of the suggestions made by the commission is that the extraordinary thickness of the ice during recent years has been caused by the operations of the Megantic Pulp Company, as a result of their closing their dams from Saturday to Monday during the winter, in order to accumulate water for their work at the beginning of the week. The report states that this practice results in lowering the level of other parts of the river and allowing the ice to sink to the bottom, after which it is soon enlarged because of the shallowness of the water surrounding it. When the dams are opened on Mondays, the rush of water passing under and over the ice quickly increases its size so that ice which formerly attained a thickness of from 3 to 4 ft. now, attains the abnormal thickness of from 16 to 18 feet. For these reasons, the commission advises the government that it should declare the Chaudiere a navigable stream in order to obtain power to compel the company to let the water take its natural course.

The Canadian Trade Commissioner for British Guiana, in a recent report upon the lumber trade says:—"Though properly a raw material, lumber may be considered here along with manufactured goods. There was a falling off in the importation last year, and the decline will probably not be made up, as the forest industries are receiving considerable attention, and saw mills are being erected on most of the forest areas. The short import was chiefly in yellow pine from the United States; spruce and other Canadian lumber was in average demand, and there was no fall off.

"There was a greater demand for shooks last year on account of the additional quantity of rum casks required. A shortage in the sugar crop, however, occasioned a decline in the importation of puncheon staves. The United States supply nearly all the staves, shooks and headings, except a small lot credited to Great Britain, probably from Norway and Sweden. Within the last few years Canadian manufacturers have entered the West Indies with shooks made of birch, and as the value of last year's importation of staves, headings and shooks into British Guiana amounted to upwards of $40,000, the item is one that should prove attractive to our wood working factories.

A new industry for British Columbia—one that promises to be a valuable side line to lumbering—has been inaugurated by the Powell River Pulp & Lumber Company at their camps at Turnour Island and King River this year. The company during the present season has stripped its hemlock logs of their bark with the intention either of exporting the bark for use in tanning factories, or if tariff difficulties prevent this, of building a small plant for the purpose of rendering the bark into tanning extract. According to Inspector Black of the Provincial Timber Department, who recently visited the company's camps, there are about four to five thousand cords of the bark stacked up ready for export, and stripping on a larger scale is to be done. If this process is followed generally among the coast loggers, it is possible that a very extensive business in hemlock bark and tanning extract will be brought to the Pacific coast. The stripping of the hemlock logs was not done primarily for the sake of the bark. The Powell River company had lost many large hemlock logs during the season owing to the logs being so full of sap when cut that they sink while being towed down the coast to the company's mill. The experiment of stripping the logs was tried, with the intention of allowing the logs to dry up enough to prevent the possibility of their sinking during transit. As they have to be stripped at the mill before being ground up for pulp, the extra cost of stripping them at the logging camps is not very great, and if the bark is readily exportable, it is calculated that a profit of about $2 a cord can be made by the new method. In addition there is the saving through preventing the loss of logs in towing.

New Brunswick Timberland Situation

Considerations to be Borne in Mind by Those Who Wish to Understand Requirements of Lumbering Industry—Suggested Remedies for Present Conditions

The government of the province of New Brunswick is face to face to-day with one of the most vital problems which it will ever have to solve, namely: the preparation of a new timber policy. There is no denying the fact that upon its forest resources depends much of the future welfare of New Brunswick. If a great fire were to wipe out the forests of the province, it would mean complete ruin to the people. The administration of the forest resources, therefore, is a matter which involves the prosperity of the people of New Brunswick in a manner which cannot be the case in regard to any other of its industries. All of the leases and other arrangements under which timber is being cut from Crown Lands within the province of New Brunswick to-day, will expire in 1918, and long before that date it will be necessary for the government of the province to announce the new terms under which it will permit lumbering operations upon Crown lands. The people of the province, in fact, expect that the government will make an announcement of the general features of its proposed new timber policy during the next session of the Legislature, which will take place some time during the coming winter. For this reason the Canada Lumberman has made inquiries of some of those who are most closely in touch with the timber situation in New Brunswick, in order to secure the opinions of those whose interests are involved and to present them to its readers for their consideration. We do not expect that the views expressed will be acceptable to all readers. The object of this article and of others which we hope will follow it, is simply to open the subject for discussion, in the hope that others, who have given the question their attention, will submit their views and bring about a general consideration of the subject which may be of value at the present juncture and assist the government in developing a plan of timberland administration that will be more in accord with the views of the lumbering interests of the province than have been the various policies of the past.

The views expressed in the following article are those of a man who has given close study to the whole situation. He is a man, moreover, whose whole lifetime has been devoted to lumbering and forestry matters and who has lived among forests of the east so long that he is acquainted minutely with the details which he discusses. We present his views, not in his own words in their entirety, but in the form of an article, any alterations which have been made, being simply to present the facts in more readable sequence. The ideas are his, not the Canada Lumberman's, although in most cases we are compelled by the force of his arguments to admit that there is behind them the reasonableness which brings conviction. The statement of the case from his point of view is as follows:

An Unsatisfactory Condition

There is so much dense ignorance prevailing, in regard to revenues from forest lands that any one who will give the matter conscientious study, and make public the unquestionable facts, will be doing a great service, not only to the individual owner, but to the whole Dominion. The practice followed in the province of New Brunswick in connection with permitting lumbering operations upon Crown Lands has been far from satisfactory, so far as the preservation of the interests of the people of the province is concerned.

This practice consists of charging a flat rate for any particular species of lumber, no matter where located, and, as a result, the lands which are most accessible and cheapest to operate have been cut very hard—more in many instances than they should have been. On the other hand the lands which are most remote, where the cost of cutting and driving lumber was materially greater, have not been cropped as they should have been, and, as a result, an enormous acreage must be allowed to rest for a long time before it can be of any value for the production of timber. Naturally this situation brings to mind the most vital question of all, namely: what is the annual increase in the volume of standing timber in New Brunswick? From personal knowledge and very extensive scientific investigation it has been learned that this increase does not exceed three per cent. annually, while in the majority of cases it is less than three per cent. It may be taken as a definitely settled fact that all of the spruce-growing territory in eastern America is subject to the same condition. Therefore, if a fair money value is placed on any spruce-growing territory in New Brunswick, the limit of income that anyone could even hope to secure from wild land territory, allowing nothing for expense, insurance or taxes, is three per cent. compound interest. It should not be imagined from this statement, however, that it is possible to make a three per cent profit. It must be born in mind that this three per cent. is the gross income, from which must be deducted all expenses for general superintendence, fire patrol and taxation, to say nothing of the decrease in acreage which must result annually from fires, no matter how closely the forest may be patrolled. With this slow rate of growth, any tract of land systematically lumbered to a certain grade or size cannot be lumbered a second time, and the cut confined to the same minimum grade, in less than twenty-five years. In other words, although farm crops can be harvested annually, and forest crops only once in twenty-five years, there is a persistent belief, based upon false information, that forest lands should bear the same rate of taxation as cultivated farm lands, or stocks-in-trade that are handled at a profit perhaps three or four times a year.

How Timber Owners Made Money

It is quite true that many timberland owners have become rich in consequence of their holdings of wild land. This is the reason for the existence of the incorrect belief that lumbering is an exceptionally profitable business and one that will stand taxation to an extent greatly in excess of other industries—a belief which is farther from the truth than those who entertain it can possibly imagine. This belief is based upon a misunderstanding of the source of wealth of the few fortunate ones who obtained title to their timberlands some forty years or more ago. In those days they paid for their timber, scarcely a song, and then they lumbered feverishly at a rate which recovered for them their entire outlay in an incredibly short space of time. Since that day there has been a constant appreciation in the value of timberlands, and consequently all revenues they have obtained from the sale of lumber during this long period have been net profits. For this reason, those who have not inquired into the situation as it stands to-day will clamour loudly for heavy taxation imposed indiscriminately upon all owners of standing timber. Nothing could be more unjust. Anyone who purchases wild lands to-day, unless they are wonderfully timbered, permitting of immediate operations upon a large scale, is more than likely to become a bankrupt in a short space of time.

A remarkable illustration of the peculiar and at the same time most unsatisfactory state of affairs in connection with the timberlands of New Brunswick to-day, is afforded by the case of a large timberland owning company, namely; the New Brunswick Railway Company, which secured its land many years ago from the government by way of a land grant in return for the construction of its railway. This company owns in wild lands, some 1,600,000 acres, located largely parallel to the St. John River, north of Fredericton and just back of the agricultural land held by the settlers in four counties, namely: York, Carleton, Victoria and Madawaska. The majority of this land is drained by tributaries to the St. John River, but a portion is drained by the Restigouche River and another considerable portion by the Miramichi River. The average cut of lumber from this territory for quite a number of years back has been about forty-five or fifty million feet annually. Until within the last two years, this company has followed the same practice as the Crown Lands office, namely: charged a flat rate for any particular species of lumber, no matter where located. They, too, found that this policy led to the exhaustion of timberlands located in easily accessible places and the neglect of those which were not so accessible. The New Brunswick Railway Company charges a higher rate of stumpage than is charged on Crown lands. For the sake of simplicity, however, it is interesting to imagine that their stumpage dues are placed at $1.25 per thousand, the same as is charged by the government. The face value of the stock of the New Brunswick Railway Company is $3,000,000—less than $2 per acre of its timberland holdings—yet during only two years of the past twenty has the company paid a four per cent. dividend upon this stock, although the revenues were obtained by cutting the lumber, which is virtually paying dividends out of capital stock. Calculating the revenue of the company on the basis of $1.25 per thousand feet—and deducting administration, taxes of about $10,000; scaling expenses of about $5,000, forest patrol and superintendence, it will be readily seen that the net revenue to the stockholders, even at a very low appraisal for the value of the land, would be extremely small.

Considering the government therefore, as in a position somewhat similar to that of the New Brunswick Railway Company, in that it owns large quantities of timberlands—the problem of timberland administration becomes one of great intricacy, appearing at first

sight to involve little possibility of profit either to the government or to the lumberman. The problem, therefore, is one which should not be approached without the advice and information of men who have made the question their life-long study. Some of the regulations which have been enforced in the past, clearly demonstrate the futility of approaching so great a question without a firm conviction that the means to be adopted will stand the test of actual practice. Take for instance the law which was passed recently, preventing the exportation of pulp wood. One need not spend many days among the lumbermen of New Brunswick in order to find a strong opposition to this law. It must be admitted on the other hand that there are those who will argue keenly that this law is an excellent one. The object, of course, was to encourage the manufacture of wood pulp and paper within the province of New Brunswick.

Those who believe that the prohibition of export is not a benefit assert that it will not have the desired result, and that it will prevent the exploitation of much valuable pulp wood, which, if cut and exported, would bring in extensive revenues to the people of New Brunswick. They admit that indiscriminate cutting of pulp wood would be very disastrous, but point out that within the province, as in other spruce-growing regions, there are vast areas which have never produced a mill log, but which would produce large quantities of pulp wood by thinning, and leave the balance of the stand of lumber in an excellent condition for rapid, thrifty growth. Without such thinning, the growth in these areas is actually nothing. Perhaps this statement needs explanation. In virgin growth the old trees are dying and dropping down as fast as the younger ones are growing, so that the annual increase is nothing. In cut-over land, on the other hand, the light and air are allowed to penetrate and the timber shows an annual increase of from two to three and one-half per cent.

Suggested Remedies

Under the conditions outlined above, it is natural to enquire what remedies should be recommended. Briefly speaking, the most practical solution of all these difficulties would be based upon regulations of the following nature:

First—A complete exploration, survey and mapping of all forest areas, with all the data referring to growth that can be obtained.

Second—A complete revision of the rates of stumpage to be charged for lumber, making the price correspond with the cost of lumber delivered at the mill.

Third—A repeal of the exportation law (which prohibits the cutting of pulp wood) and allowing the thinning process to be practiced, permitting the product to be sold to the best advantage.

Fourth—A complete repeal of the present settling laws so that only small tracts located at convenient points shall be available for settlers, and only such land as is suitable for agricultural purposes. This would prevent so large an amount of the Crown lands being practically stolen by nominal settlers, who go upon them and acquire title simply to obtain the lumber, and later abandon them.

Fifth—A careful revision of the taxation laws affecting wild lands, so that they shall not be taxed at all, or only subject to a normal tax during the long periods when they are not being cut. Even more just and equitable would be an arrangement to make them absolutely free from taxation at all times, charging only for the crop as it is gathered, at a fair rate.

Lastly—Placing the Crown Lands under the management of a non-partisan commission, so that their management should not be subject to any political influence. Such a commission should place in charge of these lands the very best intelligence that they can secure, in order to conserve them and at the same time to obtain from them the largest revenues that can safely be obtained from such forest areas.

Canadian Lumber—Swedish Machines

Interesting Operations at Nordin, N. B., and other New Brunswick Points—A Successful Undertaking Carried Out by Swedish Canadian Lumber Company

Swedish methods of manufacturing lumber have long been famous in the markets of Great Britain and European countries for the excellent quality of the lumber produced. Swedish machines have had much to do with this success and the careful attention to detail for which the Swedish workman is famous, have also been an important factor. When, some years ago, the Swedish Canadian Lumber Company was formed with Swedish capital behind it, lumbermen in Canada showed great interest in the proposition and the resulting organization of an operating company with a number of mills in New Brunswick has been favorably commented upon by all who have become acquainted with the methods and results secured. The chief idea behind the proposition was to demonstrate that a profitable business could be built up in Canada in which Canadian lumber would be manufactured with Swedish machinery and by Swedish methods. This idea has been proved to be correct and to-day one of the most successful and widely-known lumber manufacturing companies in Eastern Canada is the Swedish Canadian Lumber Company, of Nordin, N.B., operating mills at Nordin, Rexton and Richibucto, N.B.

The sawmill at Nordin was built in 1905 and the planing mill in 1906. The equipment of the sawmill includes two gangs of Swedish manufacture; one twin rotary, resaw, edger, lath machine, trimmers, etc. The planing mill equipment includes two large planing machines and two resaws. All the machinery in the two sawmills is of Swedish manufacture except the edger and slab resaw, The output of the sawmill is about 40,000 feet per day and the capacity of the planing mill is about the same. In addition to the above, the lath machine turns out 15,000 lath per day. The power for the mill is furnished by two Robb, Armstrong boilers and engine with a capacity of 250 horse power.

The limits from which the company secure their timber are located in the counties of Northumberland and Kent and cover about 250 square miles, most of the timber is spruce, but there is also a small quantity of cedar, hemlock and pine, and the licenses under which the company are operating cover all classes of timber.

The business at Nordin formerly belonged to the Rosebank Lumber Company, of Douglastown, and was taken over by the Swedish Canadian Company of the same place, who afterwards christened the town Nordin. The output of the mill is practically all disposed of in the markets of Liverpool, Manchester and Bristol. Of late the company has also been delivering some of its output in France, where it competes successfully with Scandinavian lumber.

Saw Mill of The Swedish Canadian Lumber Company, Nordin, N. B.

Mr. G. H. Hedelius, of Stockholm, Sweden, is President of the company. The manager is Mr. O. W. Nordin, of Nordin, New Brunswick. Mr. J. Andre, formerly of Sweden, occupies the position of assistant manager of the company and is in charge of the mill at Nordin. The mills at Richibucto and Rexton are in charge of Mr. A. Kulinder. Mr. H. Tideman is superintendent of the mill at Nordin and of the woods operations.

The Swedish Canadian Lumber Company's mill at Rexton, New Brunswick is equipped with a double cutting band saw, edger, lath machine, planers, etc. Its capacity is 45,000 ft. per day, and 20,000 lath. Its power equipment consists of two Robb boilers with a 240 h.p. engine.

The Richibucto mill is equipped with a rotary saw, edger, two planers, etc. Its capacity is 20,000 ft. of lumber and 10,000 lath per day.

The plant at Richibucto also produces electric light for Rexton and Richibucto.

New Brunswick Logging Conditions

Changes Which Have Occurred Since the Early Days—High Cost of Labor Resulting in Better Accomodation and More Careful Methods of Operation*

THE laying out and building of a lumber camp is an undertaking which always has its own individual problems connected with each new timber area in which a camp is to be located. In a good many respects the problems have been standardized, and yet there are always so many local conditions to be considered that each new camp laid out is, in a large measure, a new proposition. In Eastern Canada the chief features to be considered are often of a standard type although it cannot be said of any one camp that it can be laid out along definite principles which can be learned from the conditions prevailing in another camp, no matter how similar the conditions may be. Under these circumstances there is certain to be much interesting information for lumbermen in other parts of the country, in a description of the problems to be solved and the methods adopted in connection with the laying out of camps in a particular section of the country.

Lumbering in New Brunswick presents a number of interesting features for lumbermen in other parts of Canada. The ordinary lumber camp in New Brunswick is not unlike the camps in Nova Scotia, Quebec and Ontario. It is, however, in a special sense, the result of evolution and it presents features which, to the lumber jack of the earlier days in New Brunswick, would be cause for much astonishment. Generally speaking the chief changes which have taken place in the laying out of a modern camp are in the direction of providing greater comfort for the lumber jacks and for the horses, as well as providing better facilities for the care of implements and for the economic management of the camp in general. In the earlier days timber was large and profits were more certain. The timber owner thought less about the welfare of his employees and the care of his animals and tools than of the importance of getting the logs out in any manner at all. To-day timber is expensive. Good timber is scarce. Labor costs a great deal more and competition is so keen that profits have been reduced to a minimum. Logging has become a science and the financial conditions under which it is conducted have approximated more and more closely to those under which nearly every business operation of the present day is conducted. Cost accounts are carefully kept and every item of unnecessary expenditure is cut out so that as much as possible may be devoted to providing the best possible accommodation and food for the men and the animals which do the actual work. Labor, in fact, is the key of the logging proposition to-day and is the all-important element, whereas in the earlier days labor was scarcely given any consideration. Upon this alteration in the importance of the class of labor secured has hinged the most important of the changes which have taken place in the methods of constructing and laying out logging camps.

A Large Brow of Logs on the Ice

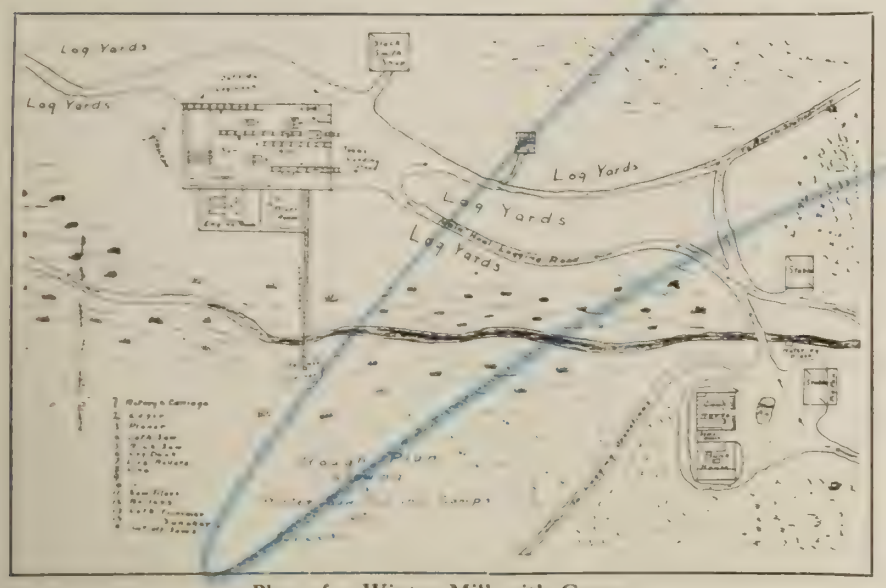
Unloading at the Landing

The original logging camps established in the great pine forests of the province of New Brunswick along the St. John River were simply enclosures, one or two logs high, from each side of which spruce poles were projected in the form of rafters to a meeting with each other from 16 to 20 feet in the air. Cross poles were laid upon the rafters and fastened by means of strips of bark. On top of this net work were placed spruce or hemlock boughs with their tops turned downwards, providing an effective shield against snow and a passable one against rain. Large openings were left in both gables. The doors were low and wide and of sufficient size to permit the hauling in of logs which were used for the large fire that was always kept burning in the centre of the camp. These logs were hauled in by horses and banked as in a bonfire, the smoke escaping through a hole in the roof. In fact it would not be difficult to imagine from the plan of one of these early camps that its inhabitants were akin to the Huron Indians who lived on the shores of the Georgian Bay and erected large council houses on a very similar plan. The great fire in the centre of the old time camp provided both heat and cooking facilities. In its coals were baked the beans, pork, bread, etc., which formed the staples of the lumber-jack's daily food.

The sleeping accommodation was of a similarly primitive nature. Lengthwise, on either side of the big camp building, were arrayed the camp bunks. The mattress consisted of spruce boughs supported above the ground by poles. This field-bed extended the entire length of both sides of the building. Blankets were sewn together to form the undersheet and cover the boughs. The upper sheets were of an exactly similar nature. For pillow the lumber jack used his dunnage bag, or his "turkey," a pair of boots, an old saddle; in fact anything that would serve to raise his head. It may well be imagined that when the camp was full, which was most of the time; the business of going to sleep and remaining there was a formidable one. The enviable position in this bed was near the centre of the row, as it was opposite the fire. The unlucky positions were on the

A Temporary Camp Building with Tar Paper Roof

* Prepared from information furnished by G. S. Grimmer, University of New Brunswick Forestry School, Class of 1910.



Plan of a Winter Mill with Camps

ends of the lines which were far from the fire, and often were left without any covering.

From this early and primitive beginning the development commenced. One of the earliest improvements was the raising of the log portion of the camp to such a height that a man could stand up comfortably near the sides. Smaller and more numerous camps were introduced and finally the bunk house commenced to make its appearance, with crude fire places which gave way subsequently to huge cast-iron stoves fed with long lengths of wood.

Several cook houses, with plain dining rooms and a kitchen at one end of the building, were the next innovation. The horses, however, were still kept in a log barn very similar to the camp building, above described. The arrival of the bunk house soon led to the disappearance of the field-bed, which was superseded by rows of bunks, two and three tiers high in which only two men slept together and strong mattresses took the place of the spruce boughs.

In places where lumber was available, the log shanty gave way to the camp building of two thicknesses of wall boards set on end, nailed together with a roof overhead, and, as the camp shanty improved, tar paper was placed between and over the boards to keep out the rain and the biting blasts of winter. These buildings also permitted the use of windows.

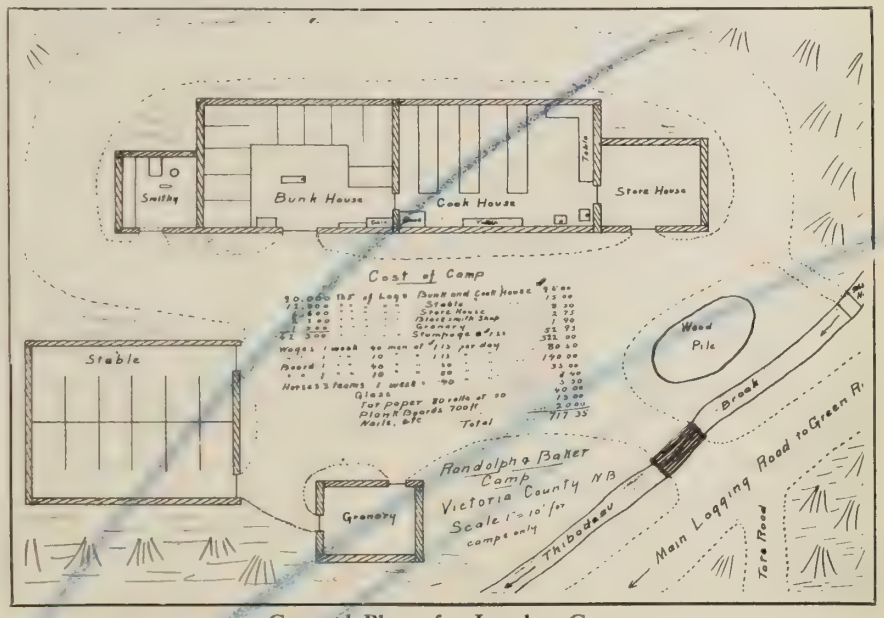
To-day the average set of camp buildings is more clean and comfortable than the average hotel in a country town. The lumber-jacks have their clothes washed at regular intervals and the camps are kept very clean. The food has been immeasurably improved as logging operators find that they cannot keep their men unless they are furnished with well cooked food. Fresh meat and vegetables are to-day upon the bill of fare in nearly every modern camp, taking the place of the "salt horse," "pea soup" and "hard tack" which formerly made up most of the lumber jack's food.

Improved Conditions of To-Day

In the old days the life of the lumber jack involved long months outside the pale of civilization. To-day he enjoys most of the luxuries of life that can be obtained in the best country village in the land. His hours of labor are not unreasonable. He has good food, good clean beds and in general, his life is vastly improved in comparison with the life which was led by the lumber jacks a generation ago. To sum the matter up in a sentence, the old life of filth, firewater and fighting have given way to wholesome cleanliness, intelligence and decency.

Along with the improvement in the manner of living, there has come about an improvement in the methods of work. A comparison of the logging methods in use during the early history of the St. John River with the methods at present in use will show a number of important improvements and illustrations. In the early days the lumbermen upon the St. John River only took out the best trees, and it frequently happened that during the process, more lumber was wasted than was actually secured in the tree itself. Trees were felled with axes and squared before being hauled to the river's bank by oxen or with block and tackle. No care was taken to protect the young growth or to destroy the brush that accumulated. Only the best part of the tree was taken and large tops were left which formed splendid material for the forest fires which followed so often and destroyed many thousand acres of valuable forests. We are accustomed to criticizing even the methods of logging in use to-day, claiming that they are wasteful. Nevertheless, they are greatly improved as compared with the older methods. Greater care is taken in the lumbering operations. Saws only are used to fell the trees and the logs are hauled out to the river bank by horses. The young growth is protected, brush is burned up and all of the tree is taken up to five inches at the top, leaving comparatively no waste.

Lumbering operations in New Brunswick to-day correspond rather closely with those in other parts of Canada. There are cer-



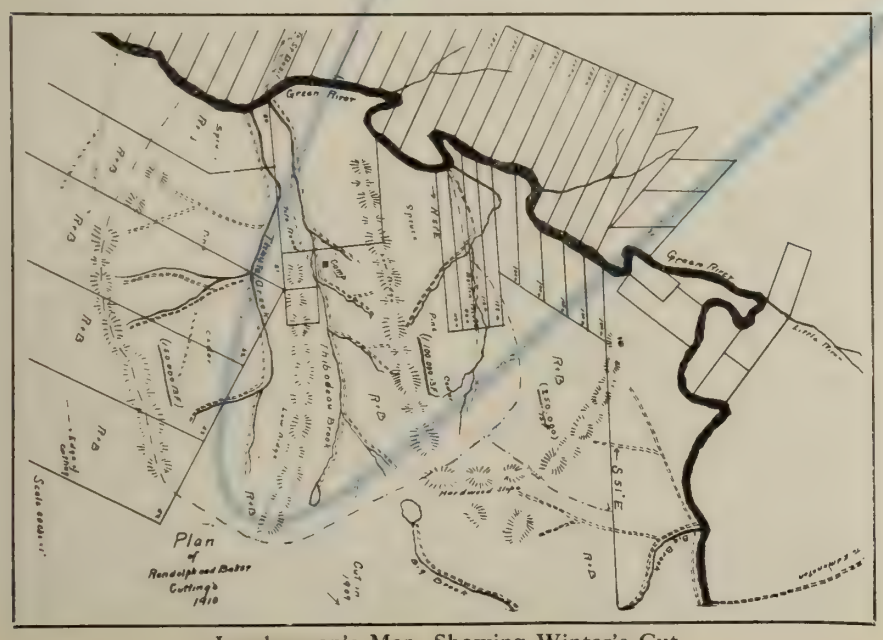
General Plan of a Lumber Camp

tain differences resulting from the nature of the country, but generally speaking, the problems to be solved in connection with the taking out of timber are much the same as they are in Quebec and Ontario. In the first place, a number of preliminaries have to be attended to, involving a careful study of the country to be operated, so as to determine the easiest, shortest and quickest way of getting supplies in and bringing lumber out. The location and the building of the camp involves much the same problems as in other parts of the country. The average camp established to-day in New Brunswick includes a cook house and a bunk house which for a crew of about sixty men would each be about 28 ft. by 30 ft. and 8 ft. to the eaves.

The swamping crew generally consists of about five men who attend to the swamping out and putting in shape of the main hauling road to the landings or to the mill. It is essential that these roads be laid out with much care, particular attention being paid to avoiding steep grades. In clearing the road, trees are cut close to the ground, large stumps are burned out, holes are filled in with short logs, bridges are put across brooks or streams and very rocky or swampy grounds are corduroyed with poles about six or eight inches in diameter.

Another gang, known as the brook crew, attends to cleaning out the brooks and streams down which logs are to be driven. Four or five men will compose an ordinary brook crew. They must remove all trees, roots, old logs, etc., which would interfere with driving. Large boulders have to be removed with dynamite. Bulk heads must be built across small gaps which would otherwise collect logs and form a jam. Splash dams have to be built wherever it is necessary to collect sufficient water to float the logs over shallow portions of the stream.

The yarding crew as a rule consists of seven men; two sawyers,



Lumberman's Map, Showing Winter's Cut

two swampers, one knotter, one teamster and one yard tender. The trees are felled and cut up into log lengths by the sawyers and the knotter then removes the limbs and places the company's mark on each log. Swampers in the meanwhile have brushed out a path so that the teamster can haul the logs to the yard.

At the yards the logs are stored till the snow comes and makes it possible to haul them to the mill or to the landings. A few logs are used as a foundation and the others are rolled into position on top of the foundation. One crew can, under average conditions, place at least 150 logs in the yard each day. The work continues until the frost and snow interferes and then the hauling commences.

As to the work of hauling, it is similar to the same operation in other parts of the country. Snow roads are built and iced with a water tank until they are in a condition to permit of the sleds being easily pulled along them. To keep the ice roads in shape, requires the services of two men to every mile and a half of road. These men travel back and forth over their sections all day long, removing all obstructions which accumulate during the day and night. They also keep the road built up, filling in hollows and levelling off mounds. The maintenance of a good ice road is, in fact, a very difficult operation, and one upon which the success of the camp operations very largely depend.

Double runner sleds or "bob sleds," as they are called, are used for transporting the logs. The sleds are built upwards and are about 5½ to 6 feet on the rockers. Each sled carries about twenty logs which are firmly bound on by chains and hauled to the landing where they are scaled.

Hauling Logs by Steam

The growth of the lumbering industry in New Brunswick has involved the cutting out of the timber in the more accessible parts of the province, making it necessary to go farther back from the drivable rivers and streams to secure supplies of timber. This necessitates long hauls before the logs can be placed in the streams, and an important development has been brought about by this condition. The steam log hauler, built by the firm of Alexander, Dunbar & Sons Company, Woodstock, N.B., is designed especially to overcome the difficulty arising out of these long hauls. The use of the steam log hauler has been steadily increasing and it has proved a most important factor in connection with logging in New Brunswick. The roads are built in the same manner as they formerly were when logs were drawn out by horses, with the exception that they must be 9 ft. wide instead of 7 ft. The work that can be accomplished in this manner as compared with the work of horses and the cost of the same is shown in the following tables:

Engine cost	$6,000.00
Other equipment	4,000.00
	$10,000.00

An equal amount of work performed by horses would show the following results:—

Twenty pair of horses at $500 per pair	$10,000.00
Sleds, harness, etc.	2,000.00
	$12,000.00

Cost of engine with crew per 24 hours	$ 45.00
Cost of horses with crew per 24 hours	112.00
A saving of	$ 67.00

In one season, therefore, it is possible to save almost the price of an engine on the work for which it would be necessary to employ twenty pair of horses. Other advantages are also involved in the use of a steam log hauler; for instance, when work is through, the engine stops and costs nothing. Horses, however, have to be fed and looked after and they can be worked at most for twelve hours a day, whereas an engine could be worked for 24 hours. More men are necessary to handle the horses than to handle an engine and they also involve an additional expense of about $50 per day. A number of these engines are already in use and it seems certain that in the near future they will be in very general use among the larger operators.

When the logs reach the landings, they are scaled by the company's scaler and his assistants. This work is similar to the scaling work in other parts of Canada. An average scaler and his assistant will scale from 2,000 to 3,000 logs per day.

The cost of logging operations in New Brunswick varies as in all other parts of Canada, according to the location of the limits in question. An idea of the expense, however, may be secured from the following estimate furnished by Messrs. Randolph & Baker, St. John, N.B. In their operations they estimate that their cost of cutting the logs and getting them to the booms at Fredericton, is as follows:—cutting and skidding—$4 per M; hauling—$2 per M; driving and rafting—$2.10 per M; total—$8.10 per M.

The New Brunswick log scale upon which operations in the provinces are based is a combination of the Vermont rule and the Maine rule. In cases of dispute it is the official scale in the province of New Brunswick. Its figures are as follows:

Diameter Size	Length of Log							
	12 ft.	14 ft.	16 ft.	18 ft.	20 ft.	21 ft.	22 ft.	24 ft.
	Contents Board Feet							
8	30	35	40	45	50	53	55	60
9	38	42	48	54	60	62	66	72
10	48	56	64	72	76	84	88	96
11	59	70	80	90	104	105	110	120
12	72	84	96	108	120	126	132	144
13	84	98	112	126	140	147	154	168
14	98	114	130	147	163	171	179	196
15	112	131	150	168	187	196	205	224
16	128	149	170	192	212	222	234	256
17	149	174	188	223	248	261	275	298
18	172	200	229	258	286	301	315	344
19	196	238	261	294	326	343	359	392
20	225	262	300	337	375	393	412	450
21	247	288	327	370	411	422	453	494
22	272	317	362	408	453	476	498	544
23	297	336	376	445	495	519	544	594
24	324	380	432	486	537	569	594	648
25	358	419	477	540	586	620	656	715
26	380	444	507	570	634	665	697	761
27	410	478	546	615	682	717	751	819
28	460	537	614	690	736	805	844	920
29	495	575	657	739	820	862	903	985
30	530	618	706	795	883	927	971	1060

The supplies required for a day camp of 60 men in New Brunswich are about as follows: .

⅛ bbl. beets, 10 lb. lard, ½ bbl. potatoes, 4 lb. salt, ¼ bbl. carrots, 1 lb. pepper, ¼ bbl. turnips, ½ peck beans, 5 bbl. water, ½ peck peas, ½ bbl. flour, ½ box prunes, 50 lbs. pork, 8 quarts molasses, ¼ of beef, ½ box evaporoted apples, 8 lbs. butter, 20 lbs. cream of tartar per week, 2 lbs. tea, 10 lbs. soda per week, 20 lbs. sugar.

The meals will average in cost from 8 to 15c. each per man.

In addition to the bunk house and cook house the camp includes a stable or hovel, built like the bunk house of logs and having a board roof covered with tar paper. The stalls are of double width so that each team of horses will be together. The hay and grain are kept at one of the stable.

The crew and their work are much of the same in all camps. The cook, teamsters and cookees turn out about five o'clock in the morning and the rest of the crew at five forty-five. Breakfast is served at six and the men are all ready for work at seven o'clock. The crews take a lunch with them to the woods and supper is served at six-thirty in the evening.

Toledo Fire and Marine Insurance Co. Proposed Enlargement

The Toledo Fire & Marine Insurance Company, the oldest of the lumber specializing stock fire insurance companies, which has been conducted successfully for many years with a capital of $100,000, purposes to adapt itself to new conditions by an increase of capital and surplus. This increase will enable the company to take advantage of the opportunities of a broader field than has been open to it under its smaller capitalization, and the new stock will be offered to lumbermen and millmen in Canada as well as in the United States. The plan for enlargement contemplates a $500,000 company, with $250,000 capital and $250,000 surplus.

For ten years the Toledo Fire & Marine Insurance Company has made a specialty of lumber and woodworking risks. It has demonstrated that the lumber trade, in all its ramifications owning close to ten per cent. of the aggregate insurable value of the country, constitutes a field for the operation of an insurance company well worth cultivating.

The Toledo Fire & Marine Insurance Company when organized in 1902 under its present management as a lumber specializing company, met with the instant appreciation of the lumber trade. It was the first stock company of its kind. By many years of prompt and equitable payment of losses, it has made itself known to lumbermen throughout the country as a reliable, dependable insuring organization. Its success resulted in the organization of other and larger companies, and while, with its $100,000 capital the company has been able to do a business consistent with its resources, it is recognized that with larger capital and surplus it will more readily satisfy the public demand and comply with various State requirements as to minimum capitalization.

The Need for More Companies

Great lumber manufacturing plants, wholesale and retail yards, city planing mills, woodworkers of every description and innumerable combinations and groups of such risks represent so great values subject to one fire, that a single fire insurance company operating conservatively can assume but a very small percentage of any single

risk, thus making a demand for the policies of many companies to make up the total insurance required. Thus wherever values are large, or many properties are grouped together making a large aggregate value, any strong company, such as it is proposed to create, can, on newly entering the field, with absolute certainty command its small share of these risks at many points. The aggregate of these lines obtainable throughout the country would in itself make a substantial business, and this is business of excellent quality, as wherever there are large values, fire fighting appliances and protective devices are freely installed. There is constant pressure on the insurance offices for more and better insurance by these large risks and groups of risks. The increase in number and value of such risks makes constant demand for more insurance companies.

History of the Toledo

The Toledo Fire & Marine Insurance Company was organized in 1848 with an authorized capital of $250,000. It operated successfully and retired creditably from active business in 1887. In 1902 the company, with head office at Sandusky, Ohio, was taken over by the present management, and with $100,000 capital paid in, made a specialty of lumber and woodworking risks. During the ten years ending January 1st, 1912, it received in premiums $1,080,255 and paid in losses $614,526. It paid in dividends to stockholders $103,000 or an average of 10.3 per cent., a reasonable earning in view of the difficulties confronting a company of small capitalization. It has established an excellent reputation and friendly relations with lumbermen throughout the country.

Many years of specialization in lumber and woodworking risks have gained for the company a clientele whose risks have proven profitable to the company at the rates established. With increased capital the company's policy can very readily be placed with lumber insurers of the best class throughout the country, and the company's present acquaintance in the trade will prove of great value in quickly developing an extensive business.

The company on entering the Dominion of Canada will make the customary deposit with the Dominion authorities of $50,000. As it is the desire of the directors that the new stock be well distributed throughout the field in which the company will operate, only an amount equivalent to the Canadian deposit will be held open for subscription in Canada.

The opportunity to subscribe to this portion of the new stock is being offered exclusively to Canadian lumbermen who have in past years done business with the company or its underwriting managers, the Lumber Insurers General Agency, through their Canadian office, Central Chambers, Ottawa.

Forestry Convention at Victoria, B. C.

Notable Address Delivered by President Hendry, Hon. W. R. Ross and Others—A Forestry School for B. C.—Successful Fire Protection Measures

The recent convention of the Canadian Forestry Association which was held at Victoria, B.C., was by far the most successful meeting of this kind that has ever been held in Canada. A brief report of the meeting was published in the last issue of the Canada Lumberman. Some of the interesting features, however, were unavoidably omitted from that report on account of the brief time between the holding of the meeting and the date of publication.

Among the most interesting features was the passing of a series of resolutions giving expression to the opinions of the association as shown by the addresses and discussion which took place at the various sessions. The chief resolutions passed were as follows:

(1) That the Canadian Forestry Association endorses the suggestions submitted by the British Columbia Lumber and Shingle Manufacturers' Association in favor of establishing a course in Logging Engineering in the new British Columbia University.

(2) Believing that actual working co-operation between public and private forest management is essential to mutual understanding and complete success, we urge upon Canadian lumbermen the study and emulation of the lumber owners' co-operative fire associations of the Pacific Northwestern States which are proving of great value not only in their own fire control, but also in bringing about closer and better relations between all agencies engaged in forest preservation.

(3) Whereas the proper disposal of debris resulting from lumbering operations is essential to the effective protection of forests from fire; therefore, resolved that the association urge upon the Dominion and Provincial Governments, the advisability as soon as practically possible, of adopting measures to this end.

(4) That the Canadian Forestry Association is of opinion that it is in the public interest that squatting or settlement should not be allowed on lands that are chiefly valuable for their timber, and that all non-agricultural lands should be reserved permanently for timber production.

(5) That it is important that all appointments in the forest service of the Dominion and Provincial Governments should be based on capability and experience.

(6) That the Canadian Forestry Association would recommend that the fire acts of the Province of Manitoba, Saskatchewan and Alberta which were enacted some years ago be revised so as to provide more efficiently for the prevention of fire and the punishment of offenders.

(7) That recognizing our common bond and common aims, we desire to testify to the achievements and practical assistance to the forest cause of the American Forestry Association and hope for increasing co-operation between our organizations.

(8) That this association congratulates the Government of British Columbia upon the excellent beginning it has made in the task of protecting the forests of the province and is of opinion that the force employed should be largely increased, that there should be increased expenditure not only upon patrol but also upon permanent improvements, such as the construction of trails, telephones and lookout stations, all of which will tend to make forest preservation more efficient.

(9) That this Convention endorses the action of the Dominion Government in setting aside forest reserves, that it urges further reservation of suitable areas and the retention of existing reserves in their entirety with the object of affording to the surrounding districts the best results for all time in regard to fuel and timber supply, grazing, the protection of game and regularity of stream flow.

President Hendry's Address

Mr. John Hendry, President of the Canadian Forestry Association, in his address, made special reference to the question of keeping fake settlers out of timberlands. His remarks in part were as follows:—

"We are coming further to clear realization that the two main enemies of the forests and of the continued prosperity of certain sections of the country, are fire and the pretended settler, that is, the man who goes in to defraud the country of the timber under the guise of settlement. These so-called settlers, after they have taken the timber, leave the land in such a state that it will neither produce crops of grain nor timber, and then move on to new forests to repeat the operation. If, on the other hand, the lumberman had had these lands under proper methods, they would produce timber for many years to come, and later on by plans of reforestry could be made to grow a new crop.

"Our first need, however, is to protect the crop we have. With care the timber in Canada will last many years and this care is our first consideration.

"First and most important of our duties is that we should satisfy ourselves that we have done and are doing all that we ought in regard to fire protection before we go on to reforestration. In fact, until we have banished fire from our forests money spent on reforestation will be simply thrown away. We must save what we have and use it as conservatively as possible, that is to say, reduce waste in the woods and the mill to the lowest point consistent with the economical handling of the product and the making of profit.

"This is easy to say and we have been saying it for some time, but we must realize that if our forests are not to be burned up, the governments of Canada, federal and provincial, must approach the subject more systematically than they have yet done. Each province must lay out its work just as systematically as a city fire chief would lay out his plans to cover the city, and besides there should be co-operation between the provinces and the Dominion, where their respective jurisdiction join or overlap. This, of course, means the expenditure of money, but upon what can money be better spent than on the protecting of our natural resources?

"To keep 'fake' settlers out of areas suited principally for timber, requires first a knowledge of the country, which will show where such areas are, and the power in the various governments to resist political pressure brought to bear upon them to allow pretended settlers to locate on what is chiefly valuable as timberland. Surveys should therefore be made as rapidly as possible to ascertain the areas of absolutely forest land, and the whole forest staff should be free from any partisan influence, so that it will not be silent when measures antagonistic to the good of the forest are proposed, or when parties endeavor wrongfully to enter upon forest lands. To obtain the best results the forest service should be placed under civil ser-

vice regulations whereby appointments, promotions and dismissals will be made solely upon merit. It is gratifying to know that British Columbia is taking a forward stand in these matters and that the forest service is now being organized, which bids fair to be the finest in the Dominion. This means the expenditure of a large amount of money, but so long as the service carries out the idea of protecting our forests with an eye single to the public interest I am sure the government will be sustained by the people in this work."

Guarding the Public Forests

Hon. W. R. Ross, Minister of Lands for British Columbia, delivered an interesting address upon the guardianship of the public forests of British Columbia. Referring to the work of the Forestry Commission he showed how it had led to the passing of an act for the systematic organization of forest work in the province. The two main questions to be dealt with had been the preparation of new legislation and the organization of a forest service. It had also been immediately necessary to enlarge the fire warden service for the dry season then approaching. This was successfully done by doubling the staff of fire wardens, dividing them into ten groups and providing for efficient inspection of their work. The 257 fires which had been fought during the season of 1911 cost the department only $30,000 and the up-keep of the patrol force had cost $112,000.

Hon. Mr. Ross then dealt at some length with the difficulties which had been experienced in securing capable and practical foresters for the carrying out of the forest legislation which had been passed. This, however, had been satisfactorily arranged. The forest act had become law just six months ago and it had created the new forest branch supported by a vote of $160,000, which, with the $230,000 contributed by holders of timber licenses and leases, by owners of timberlands, and by the government, to the forest protection fund would bring the total sum available up to $390,000 for the present fiscal year. Experienced men had been secured to take charge of each of the sections of the forestry work and they had been engaged in investigation work since April. The organization plans had been finally approved in June and the chief forester had taken up his duties in the middle of July. It was impossible, therefore, to give any report of actual field operations at this early stage. The work, however, had been vigorously begun and he hoped in the future to be able to report important achievements.

They were concentrating their attention at present upon the organization of a practical and efficient field force. Their plans would enable them to give far closer attention to the needs of each locality.

Nine million acres of forest in British Columbia were subject to cutting rights held by licensees. Nearly three million acres more were under lease or in private ownership. An unknown area, which they were beginning to think was much larger than had been supposed, still remained in reserve in the hands of the government. No systematic examination of these enormous areas had ever been attempted. Until they knew what timber they had and where it was, they could not tell whether their methods of handling it were sound business.

These considerations showed that they were now beginning the stock-taking of their forest resources. Eight parties were now in the field in charge of competent men, nearly all of whom had begun their careers by graduating either from the Toronto or Oxford forest schools. The survey work was being concentrated largely at first upon the regions north of the railway belt which would soon be opened up by the Grand Trunk Pacific and Canadian Northern Railways. They hoped to complete their general survey in a little over three years.

Problems for the Government

Hon. Mr. Ross referred to a number of other matters which were receiving the attention of his department. For instance, there were certain regions in the interior where it was feared that the forest was failing to reproduce itself. A careful examination of these regions was being made. A special study was being made of the effects and defects of the log scales in use in the province. Attention was being devoted to publishing reliable information to advertise British Columbia timbers and the forest industries of the province. A study was being made of timber waste in all its forms and a campaign of publicity was being carried on to combat public carelessness in regard to forest fires.

The forest act had established the forest protection fund to which all owners, lessees and licensees of timberlands were required to contribute, the government putting up dollar for dollar. The standard levy was one cent per acre with the proviso that whenever this proved insufficient there should be an automatic increase to whatever figure was necessary. Thirty-eight new fire districts had been created during the present season. By October 1st, forest protection would have cost during the present year, less than $180,000.

The question of waste in logging operations was also one which had attracted the attention of the department and was one of the most important with which it had to deal. To-day, for instance, each million feet of lumber manufactured on the Pacific coast involved the wholesale destruction of low grade material for which no market could be found. Before the problem of the low grade log they were as helpless to-day as they had been a few years ago in regard to fire protection. He hoped for co-operation between the operators and the forest service in studying methods for preventing this serious waste.

In conclusion, Hon. Mr. Ross said: "What we need to drive into the understanding of the people is that 'forestry,' as we practice it, means the scientific management of the government's immense timber business so that the citizen who would otherwise have to pay $15 in taxes, has only to pay $10; so that in years to come the citizens will have to pay still less; that while producing these effects on revenue, the system of forest finance will be so adjusted as to offer the maximum of encouragement to the growth of the lumbering industry; and—above all other considerations—so that our forest capital, the source of our prosperity, may be preserved intact."

A Forest School for British Columbia

An address by Mr. G. M. Cornwall upon the profession of the logging engineer was one of the most interesting features of the convention. He suggested that a course of study in logging engineering should be made part of the university curriculum. A general knowledge of the principles of steam, electricity and hydraulics were essential and the student should also acquire an actual working knowledge of the cutting and removal of timber. He should be a man of broad sympathy, capable of looking after the men in camp and of reducing the cost of logging operations. A difference of $1 per thousand feet in logging operations was easily made and would more than pay for the training of the engineer. A logging engineering course in a college should consist of three departments, which should be in charge of a practical logger, a cruiser and estimator and an instructor in mechanical and civil engineering. The student should spend at least eight months of each year in the bush and a certain time in a machine and blacksmith shop. He should learn to cruise and estimate timber, should have a practical knowledge of civil and mechanical engineering and be able to make topographical drawings with accuracy.

Hon. W. R. Ross made the announcement that a school of forestry would be established at the University of British Columbia.

Forest Figures in British Columbia

The protection of the forests of British Columbia from fires was the title of an address delivered by R. E. Benedict, assistant forester and chief of operation, of the British Columbia forest service. Mr. Benedict's address was replete with interesting statistics of British Columbia's forest wealth. Some of the facts included were as follows:—

The total area of British Columbia is approximately 250,000,000 acres. The government had established its fire protection service over 130,000,000 acres.

About 65,000,000 acres, on a conservative estimate, are capable of producing merchantable timber and valueless for any other purpose. The productiveness of this land varies from 1,000 board feet per acre per year, in particularly favorable localities on the coast, to 25 to 50 board feet per acre per year on the mountains of the interior. The average yield would amount to 100 board feet per acre per year at least.

This would give an annual production of 6,500,000 feet.

A fair estimate would place the mature and over mature stand at 20,000,000 acres and fully stocked second growth at 20,000,000 acres. The remaining 25,000,000 acres consisted of areas which had been badly injured by fire on which there is an inferior mixed stand of mature trees with more or less reproduction, or of land in the process of regeneration. There are practically no areas which are not regenerating.

It is a certainty that within ten years, the forests of British Columbia will increase their cut to four or five billion feet annually, which is just about the present cut of the state of Washington.

In twenty years time the production of lumber in British Columbia will only be limited by the supply, viz., six billion feet per year. It is likely that this limit will even be reached in fifteen years.

The stand of mature timber will, therefore, last from fifty to seventy-five years. At that time, the present stand of second growth timber will have matured. The annual production can, therefore, be maintained perpetually at six billion feet. This all depends upon the present stand of mature and second growth timber being preserved from fire.

The stake for which the forest protection force is working is, therefore, an annual crop of six and a half million feet of timber, worth to the government, say, six million dollars, and to the community $100,000,000.

A number of other interesting addresses were delivered upon subjects of practical interest to lumbermen and foresters. Some of these will be published in future issues of the Canada Lumberman.

Prairie Farmer Gets Cheap Lumber

C. A. Larkin During Western Trip Finds Prices Lower than in Ontario—The Shingle Market Situation

C. A. Larkin, Toronto

Mr. C. A. Larkin, President of the C. A. Larkin Lumber Company, Limited, who recently returned from a trip to the Pacific Coast, reports that everywhere in the west evidence of the prosperous condition of the lumber trade is manifest. Speaking of western conditions Mr. Larkin says:

"It will be somewhat of a surprise to many eastern lumbermen to learn that not only Douglas fir and spruce, but white pine dimension is selling in Manitoba at lower prices than in Ontario.

"Western newspapers have occasionally attacked the western lumber dealer, voicing the opinion that the prairie farmer was being charged exhorbitant prices for lumber required to build his home. Throughout the west retail yards are numerous and competition appears to be keen. Judging from the prices ruling in Ontario, which certainly cuts profits close enough, it is evident that the prairie farmer is getting a very fair deal so far as the lumber trade is concerned.

"The coast mills enjoy an immense trade with the prairie provinces. Many of the mills operate a system of line yards and readily dispose of their output through these yards. This trade, combined with the heavy local demand in British Columbia which is enjoying an unprecedented era of prosperity, is keeping the mills running to full capacity with very little stock piled in the mill yards.

"Some eight years ago a law was passed in British Columbia prohibiting the use of Japanese labor in taking out shingle bolts. Up to the present this law has not been enforced. It is said however, that it is to be enforced this season. The manufacturer is somewhat concerned, as the prohibition means an increased cost in producing shingle bolts. He claims that the selling price of shingles has not kept pace with the increased cost of production, to enable him to realize a fair margin of profit. However, it may be said that the shingle manufacturers are all very busy and have more orders on hand than they really know what to do with; the demand for shingles this year being in excess of the year 1911. One manufacturer, who seemed to be well informed on the subject, estimated the coast mills to be 300 cars behind in shipment of orders. Under these conditions it is not surprising that the manufacturers were considering this an opportune time for an advance in price. An advance has since been made; XXX are now $3.40 delivered on a 75c. freight rate.

"Combined with the present brisk demand and favorable future prospects, the manufacturers are undoubtedly placed in a sufficiently strong position to maintain the advance without difficulty."

Chapman on Forestry

The American Lumberman, of Chicago, has published an important and interesting volume on forestry, by Professor Herman H. Chapman, assistant professor of forestry at the Yale Forest School, and an author with a long and practical experience in forestry work. "Forestry," which comes from the American Lumberman press, is a practical exposition of all that the term means, stating in a clear-cut and incisive English that which has been accomplished and that which has been learned by foresters in the United States. It is a volume essentially written for men whose knowledge of Latin is limited, but whose knowledge of the practical assets of forestry and its handicaps is large.

No volume of present recollection is so simple, clear and untechnical. Theories which practical lumbermen have discounted are here discarded. Professor Chapman apparently aimed at just one thing; to write a volume that would sift all of the experiments and experiences and leave as the residue a logical statement of forestry in the United States, so far as it has progressed.

The early part of the volume, which treats of the growth of different species, is unusually entertaining, and the struggle of the tree in the forest for moisture and light is interestingly related. The influences of the seasons and of latitude are also clearly portrayed. Another section deals with natural reproduction, and it is shown how this may be best encouraged.

The author then takes up the practical subject of silviculture. He shows how it is at present handicapped by adverse taxation and inadequate fire protection. Forest fires and their prevention are carefully discussed.

The concluding chapter, "Forest Policy," is indicative of the interesting character of the whole volume. This chapter discusses the influence of forests on climate and the influence of forests on streams and soil erosions; Government regulation v. Government ownership; the history of national forestry in the United States; State forestry; agricultural soils v. forest soils; and the State as a producer of timber.

Any man who owns trees or who is concerned in their growth or cutting will find much valuable information in this book by a scientific forester who has been wise enough to record experience rather than theory and to explain simply and scientifically the proven principles most likely to be of interest and value to timber owners and those concerned with the forest. "Forestry" may be secured from The American Lumberman, 431 Dearborn street, Chicago. The price is $1.25.

A Sunken Forest in Ottawa River

Ottawa, Sept. 22nd.—Right at the Capital's side door-step there is a forest of logs sufficient to keep the mills of the two cities of Ottawa and Hull running for several years—millions of as fine logs as ever felt an axe. And yet lives are lost and money spent year after year in floating from far up in the north country, the supply that feeds these same mills which have the forest at their doors. Strange, it would seem if nothing more were said, but there is a reason. This is it.

The forest that exists only a few blocks from the House of Commons and which is of such great proportions is a buried forest. Until a few days ago few of the citizens of the Capital knew it was there. Some of the more canny ones, like J. R. Booth and Senator Edwards, knew of it, but even they did not know its immense size. It's at the bottom of Napean Bay.

This graveyard of sunken timber was discovered a few days ago through the judicial investigation that is being made into the contamination of Ottawa's water supply. Messrs. Noulan Cauchon and R. L. Haycock, consulting engineers, were instructed by the city solicitor to examine the clear water intake pipe which runs into Napean Bay. They examined it by means of divers' suits and apparatus, and reported their findings to the court of investigation.

"The bay is a graveyard of sunken logs. There are enough logs there to keep the mills of Ottawa and Hull running for several years," Mr. Cauchon told the investigation.

For years and years, ever since J. R. Booth first ran a one-horse saw mill at the Chaudiere, these logs have been piling up in Napean Bay. The bay is the booming ground of the Booth mills and every year millions of logs float down the Ottawa and come to rest there. Each boom deposits its quota at the bottom of the bay—logs that have become heavy with water and sink. Some of them are "dead" at the bottom of the river; others are floating about partway between the bottom and the surface, jostling each other and playing hide-and-seek.

And now that it is known that the quantity of these logs is so great, the question arises: can they be recovered? Lumbermen say they can be.

In fact, similar operations are being carried on elsewhere. There is machinery especially designed for the purpose and it is being used in Michigan and other places with satisfactory results.

Most of these logs belong to J. R. Booth, so the veteran lumber king may be said to have a fortune buried under the Ottawa River. Other lumbermen in the city state that they would be willing to undertake the recovering of these logs, but to do this Mr. Booth would have to relinquish his booming rights on Napean Bay. Mr. Booth himself may undertake the work some time.

In this connection it is pointed out that there is a question of national importance involved. The need of conserving the forests is recognized. In fact the government is doing its best to conserve them so that Canada may not be lumber starved in the future. Similar logging operations to those that have been carried on on the Ottawa river for years, have been carried on elsewhere. In all parts of the country where logging and booming have been done there must be other just such immense deposits of valuable logs.

Would it not be wise to have these logs recovered and used to feed the mills? If the supply at the bottom of the rivers is as great as suggested they would feed many of the mills for years. Then, while the mills are running on these, some of the standing forests might have a chance to develop and grow.

The Log Input for the Coming Winter

Reports Indicate Reduction in Ontario and an Average Cut in Eastern Canada—Foreign Markets Promising but Freights Excessive

From reports received by the Canada Lumberman it appears that the cut of logs in the woods during the approaching winter will be reduced in Ontario, while in Quebec it will remain about the same as last winter, and in the Maritime Provinces it is likely to be at least equal to that of last winter and possibly a little heavier if the present favorable indications in regard to foreign markets are justified by developments. Following are some of the letters which have been received upon the subject:

Reduced Cut in Ontario Woods

From a Georgian Bay company:—We hope to take out the coming winter about the same as last but how it will pan out for the season is another thing.

We will not put in as much timber as we did last winter. Probably about 75 per cent. of what we put in last year will cover it.—Little Current Lumber Co., Little Current, Ont.

We will take out the same amount of logs this winter as last. The hemlock cut will be about the same as last year, in Northern Ontario.—Hocken Lumber Company, Otter Lake Station, Ont.

As our limits were all cut off last year, we will not be operating in the bush this winter, and in the meantime, intend confining ourselves to the wholesale end of the business only.—De Laplante Lumber Co. Ltd., Tomiko, Ont.

From an Ottawa Valley company:—We are putting about the same number of camps as previous seasons. About 12 camps in all. We understand the operation in general in this district will not be so heavy as past seasons because of the surplus of logs now in the river.

We have six camps in at the present time, and expect to put in one more later on. We will operate to the same extent as last year, if not a little heavier. Men and horses are very scarce and wages a shade stiffer than last year.—The Pembroke Lumber Co., Pembroke, Ont.

From a large Georgian Bay lumbering manufacturing company:—We are putting in four camps and will take out about 10,000,000 feet, about the same as last year's operations. The cut along Georgian Bay will be considerably less than it was a year ago, on account of so many mills burning in the early part of the season.

We are operating in the woods to the same extent as last season, and we intend to cut as much stock. While there has been a fair price increase in most of the lines, this increase has not yet been equal to the increase in cost of manufacture, and we feel that higher prices should rule in all lines.—The C. Beck Manufacturing Co. Ltd., Penetanguishene, Ont.

From a Georgian Bay company:—Present prospects are that our operation will be about equal to last year. We just have one camp in to take out about two million feet, and expect to close the balance of next season cutting under contract. We have an option on further timber which, if we purchase, we may commence cutting this season, but at present this is indefinite.

From a northern Ontario company:—We will only run one camp on white pine and will have, say, 15,000 pieces of that grade and say ½ million feet of hemlock and ½ million feet of hardwood. The pine in this section is about done and we will only run one mill instead of two mills as we have been doing for some years. All the stock of pine, spruce, hemlock and hardwood that we have cut and will cut this season is sold.

From an Ottawa Valley company:—We are not putting in any camps of our own this season, but others are operating for our mill to about the same extent as last season. We have a good surplus supply of old logs on hand. With the exception of Booth, Shepard & Morse and J. J. McFadden & Co., the rest of the firms will, we think, operate in woods about as usual. We understand that the firms mentioned will reduce their cut.

We do not intend to install any camps during the winter of 1913, except a few small jobbers, and will purchase most of our stock from the farmers. We intend to stock five small mills and in this way expect to have four million feet sawn, including hemlock, spruce and birch. Wages and camp supplies are very high and at the present prices of hemlock and spruce we could not put in any camp.—Trout Creek Lumber Co., Nipissing, Ont.

We have in at the present time three camps and will take out about six million feet for 1913 operations. This will be made up as follows:—3,500,000 feet of hemlock; 250,000 feet of pine; 500,000 feet of balsam, ash and elm. The balance will be birch and maple. We do not think there will be as much lumber cut in Huntsville during 1913 as during 1912. Wages are very high and provisions almost on the prohibited list.—The Muskoka Wood Manufacturing Co., Huntsville, Ont.

From an Ottawa Valley company:—We purpose going on making our usual cut only, of about 25,000,000 feet. It is rumored that some of the Georgian Bay mills are reducing their cuts. We have heard of no one intending to increase. The labor question has become so acute, prices of all commodities that go to make logs are so high, and the advance which the manufacturer can obtain for his lumber is so small, that the question of lumbering has become a very serious problem. Together with all other high costs, he must reckon with the government for high additional stumpage and ground rent. All these additional costs come practically out of his stumpage value.

We will put in 8 camps this winter. We expect to cut 20 million feet of pine. This will be about the same as last year. I am unable to give you any reliable information as to the general operations for the coming season in this district, but presume there will not be as many logs taken out as last year, owing to the loss by fire of so many mills last spring.—Georgian Bay Lumber Co., Waubaushene, Ont.

Maritime Province Conditions

Regarding the woods operation generally in this section I should think the output would compare favorably with last year and the year before.—John E. Moore, St. John, N. B.

From a Miramichi River, N.B., company:—We have not yet decided the extent of our operations nor have we gone into the woods, while last year we had commenced all our operations by this time. We do not contemplate doing anything for two or three weeks yet. We have not yet fully decided the extent, but will probably reduce 50 per cent. The general impression here is that all operations in the northern part New Brunswick will be materially curtailed.

We expect to operate very lightly this season, and we think that probably four million would more than cover our expectations for the season, including what we are carrying over. Nearly all of this we expect to put into pulp. We expect to have about all shipped off at the end of the season. There is every indication of a very strong market at high prices next season.—Campbell Lumber Co., Weymouth, N.S.

Up to the present season at least 85 per cent. of all the stock cut in this locality was shipped to the English market but the high freight rates this summer have practically killed that trade, and while prices are good on the United States side for lumber suitable for the market, the operators feel that there is considerable risk in cutting too heavily with only that market to depend upon.—J. W. Kirkpatrick, Parrsboro, N. S.

Quebec Operations Increased

We expect to keep our mills up to the usual output next season.—The Lotbiniere Lumber Co., Lyster, P. Q.

We will put in about the same quantity as we did last year namely, nine million feet.—A. MacLaurin, St. Gabriel Lumber Co. Ltd., St. Gabriel de Brandon, P. Q.

We will cut this year about the same quantity as we did last, that is about 20,000,000 feet of spruce logs, as our mill capacity is for about that quantity and we do not care to operate only part of the season. Referring to the operations in general in this district, the opinion is now that they will be reduced about one-third.—Chaleurs Bay Mills, Restigouche, P. Q.

The appearance is that there will be an increase over last year, in woods operations in this part of Quebec, during the coming winter. There are very many however, who feel like ourselves, somewhat nervous about increasing lumbering operations, on account of the car situation being so bad. The future prospects, for car supply, are far from being encouraging.—Trois Pistoles Pulp & Lumber Co., Trois Pistoles, P. Q.

From an Eastern Townships, P. Q., company:—We expect to take out from six to eight million feet this winter. This is our usual cut. The market on the whole, is in about the usual condition. I think the local market is a little better than usual, but the English market is not so good, on account of the high ocean rates asked. I think the price of lumber on the English market is nearly the same this year as it was last year, but ocean freight rates have been going up so that there is less money in it for us than there was.

It is our intention to cut and deliver twenty-five million feet of timber this year. We are putting in more camps than last year, which means five million more of timber than we got out last year. In regard to timber operations in general in this district, everybody is delayed on account of scarcity of men, and I understand a number of the large concerns will not cut any logs this year, on account of scarcity of men and high wages. Men are being paid from $30 to $40 per month with board for bush work this year in this

district. Our business in general has never been so good as this year. Every stick of lumber we have in our yard has been sold, and would have been shipped out before this had we been supplied with cars.—Fassett Lumber Co. Ltd., Fassett, P. Q.

We expect this winter to cut about the usual quantity of material in our woods operations down here, that is, we will, the conditions being favorable, take out about the same quantity that we have every year for the last four or five years. We do not expect to make any increase. We will have about six camps, an average of about 50 men per camp and will cut all told probably 300,000 pieces of logs.

The situation, we think, this year is somewhat better than it has been for the last four or five years, so far as price on lumber is concerned, but owing to the great dearth of ocean tonnage, shipments from here to the British markets are practically at a standstill, as the lumbermen cannot get a better price in the English market than heretofore and the English buyer says that he cannot afford to pay the great increase in the cost of freight. Most of the lumbermen in this district are looking to the United States market and shipping the most of their output by rail and we think that for the next few years the United States market is the one that we will have to look to for most of our trade, unless the English markets very materially improve.—Cascapedia Mfg. & Trading Co., Chaleurs, P. Q.

Burning the Slash

The burning of slash was the subject of an address delivered by E. T. Allen, Forester for the Western Forestry Conservation Association, recently at the Pacific Coast Logging Congress. In the course of his address Mr. Allen said:—

It is idle to argue as to whether annual burning is good or bad, necessary or unnecessary, to be left to judgment or made compulsory. There are exceptions, of course, due to local climates or perhaps to rare individual circumstances, and the method of disposal may be different in Idaho from that in Washington. But on the whole we know that these immense accumulations of inflammable debris are our greatest single menace. Most of our bad fires start in them. Their menace increases yearly with their size and extension into new localities. On the face of it it is clear that they have been tolerated so long. It is also idle to talk of guarding slashings from fire, for we know they all burn accidentally sooner or later, usually at the very worst time. And if we were to guard them, at prodigious expense, it is two to one that they would breed insects nearly as dangerous as fire. Anyway, the law says we must burn them.

If you will analyze all the controversies you have ever heard on this subject, and be frank about it, you will admit that our chief trouble has been in trying to find a royal road by which we can burn safely and properly without cost. We have not tried to improve methods as much as we have tried to guess out times and ways to burn without improving them. We have been reluctant to face squarely the fact that conditions have reached a point where lumbering involves expense for this purpose just as it does for patrol and fire fighting. We sparred for time over these expenses once in just the same way—and lost a lot of timber by it, too. As a matter of fact, from now on slash disposal must be just as much a part of logging as falling or yarding, and must be given equal attention to insure efficiency as well as economy, or even more because mistakes cost more.

With this admitted, the rest becomes less confusing. Take fall versus spring burning, for example. This is a less important problem than we used to think it, for proper methods practically eliminate the spring danger. It is merely a question of paying for the insurance. Generally speaking, we should burn the summer's slash in the fall if we can, because it is cheaper to do it safely, but as a rule we should burn the winter slash again next spring. There is much to be said for burning again during the summer in many cases, with proper safeguards, for there will be no great dangerous accumulation to control. It really comes to just the same thing to advocate spring burning with another in the fall to get that much ahead on the summer slash. It all simply means to get rid of your slash as often as you can and generally you can, by taking sufficient precaution, because under such a system there will seldom be very dangerous situations. I refer particularly to actual slashings. The firing of extensive old burns covered with ferns and brush offers somewhat different problems, for they are often harder to surround and handle.

To anyone asking for a list of the precautions I have mentioned so often, I should begin with the most important of all and thus provide myself with a substitute. It is to have an expert do the burning and follow his advice in the individual case. The man who admits unfamiliarity by asking had best not do much experimenting if he can get the help of someone with experience. There has been too much insisting upon the burning of dangerous slashings by reluctant operators left alone to do it improperly and often after too long delay. I believe that until everyone has gained considerable practical experience, the expert slash burners of the several patrol associations should handle the risky cases, especially in those parts of the Northwest where broadcast burning, not piling, is the most practical.

The actual methods and precautions which have been developed by the men with the most experience, and their cost, will be described by the speakers who follow me. They will tell you how slashing fires act under different conditions and what control methods have been proved best. It is worth your while to profit by their discoveries, both lucky and unlucky, and which might cost you considerable to make yourself. On the whole, they will counsel spending some money, for it costs money to cut snags, clear fire-guards and put men around the fires. But they will tell you what is cheapest consistent with efficiency and safety and you can set it down as a certainty that to do anything wrong costs most in the end. Bear in mind, also, that the community has decided that the slash menace must go and your competitor is in the same boat that you are. He will not keep long any advantage through letting things drift while you are protecting yourself and the community.

Pioneer Lumberman Called by Death

H. F. McLachlin, Passes Away after Lengthy Illness—Successful in Business and Generous in Private

The late H. F. McLachlin, Arnprior, Ont.

After a six months' illness, Hugh Frederick McLachlin, president of McLachlin Bros. Ltd., Arnprior, Ont., one of the most widely known pioneer lumbermen of the Ottawa Valley, passed away at his Ottawa residence, on Friday evening, September 13th. The news of his demise, although not unexpected, brought great sorrow to all his friends.

The late H. F. McLachlin was born in Ottawa 69 years ago, the son of Daniel McLachlin, M. P. When a child his father acquired a small mill at Arnprior. On the retirement of Mr. Daniel McLachlin in 1869, the three eldest sons, Hugh F., Daniel, and John H., assumed control of the business. After the death of his two other brothers, Mr. H. F. McLachin formed a partnership with a younger brother, Claude. The latter died in 1904 and about that time the company was made a limited one with Mr. Hugh F. McLachlin as president and his son Daniel McLachlin, Arnprior, vice-president.

From the moment when Mr. McLachlin placed his hand on the controlling wheel of the huge saw and lumber business that bears his name, it has prospered and he leaves it now as one of the largest in the Ottawa Valley. Some idea of the growth and magnitude of the business may be had when it is learned that the capacity of the mills has been increased from 100,000 ft. of sawn lumber per day to 400,000 ft., under Mr. McLachlin's management.

Mr. McLachlin manifested at all times the greatest interest in the town of,Arnprior and his great benevolence while practised without any ostentation whatever, was well known to everybody in the town. Creed nor color mattered not to him and the case had but to be a deserving one to appeal to his generosity. Certainly no man has died more truly regretted by those who knew him, either as a personal friend or business associate.

The home life of the late Mr. McLachlin was as happy as his business career was successful. In 1878 he married Miss Mary Champney, of Yorkshire, Eng., who survives him, together with nine children.

Although so prominent a man, the deceased cannot be said to have taken a very active part in public life. In fact, his business seemed to be his greatest concern and he devoted himself to it with infinite care, patience and skill. Mr. McLachlin was a director of the Bank of Ottawa and a prominent shareholder in many other financial institutions.

A large number of prominent men in every walk of life, as well as great numbers from Arnprior attended the funeral on Monday, Sept. 16, to pay their last respects to a man whose work was not such as is recorded on the pages of political history but rather of such value that it could be written only on the memories of his friends.

Lumber Prices and the Box Situation

Box Lumber Prices Increased—Demand Greater and Supply Smaller—Causes of Shortage and Higher Prices—Consumers Objecting to Advanced Prices

THE increased commercial activity and general prosperity which have become so noticeable during the past two or three years throughout Canada, have brought about a number of important and interesting changes in the lumbering industry. Not the least of these is the fact that the low grades of lumber have at last obtained a definite value which makes them a profitable stock for the manufacturer to produce. It is only a matter of a few years since the low grades of lumber were being piled in the manufacturers' yards so rapidly that practically every yard became congested with them and manufacturers were seriously hampered in conducting their business. To-day the situation is exactly the reverse. Low grade stocks have been cleared off everywhere and the manufacturers of boxes who depend upon them for their raw material, not only find it difficult to secure sufficient stocks, but are obliged to pay higher prices, which are giving them considerable anxiety regarding the future profits of their business. Fortunately, at the present time the demand for boxes is so good that the manufacturers are able to select their customers with greater care than usual. They have thus been able to reduce the quantity of credit which they are giving, and in most cases to secure cash against their documents. The outcome of this situation is, that although they may not actually be securing higher prices for their boxes, they are obtaining quicker and more certain payments and the interest upon the money invested in their manufacturing processes is a less formidable element of cost than it used to be.

A number of interviews were recently secured by the Canada Lumberman upon this subject and they brought out some exceptionally interesting points. They demonstrated that the manufacturers of boxes in Toronto are practically unanimous in their views upon the present situation although they expressed a certain amount of diverse opinion upon some of the less important points. As to the demand for box lumber, there is no doubt about it being far greater to-day in Canada than it has ever been at any previous period. The indications, moreover, are that this condition will continue and that for some time to come, the demand for boxes will increase steadily. All the manufacturers of boxes in Toronto take this view of the situation, and in explanation of it, say that it is the result of the great increase in trade, and the wonderful prosperity which the country is to-day enjoying. Another factor of considerable importance is the large number of immigrants entering Canada. The arrival of these immigrants keeps up a steady demand for practically every essential article which goes towards the comfortable livelihood of a Canadian citizen. Many of these articles have to be shipped in boxes and the connection of the arriving immigrant with the demand for boxes is very definite and clear. So long as this immigration continues, and there is every probability of it doing so for some years to come, the demand for boxes is likely to be good.

Shortage Likely to Continue

Not only are the manufacturers of boxes in Ontario pretty well agreed that the demand will continue for some time, but they are also of the opinion that they can expect a shortage of supply during the next few years. The excessive cost of timber and labor in Northern Ontario, taken together with a number of serious fires, both in sawmills and in timber producing districts during the last year or two, have resulted in an excessive cost of manufactured lumber. Some mills have been forced by this, to cease operations. Among them have been a number of the largest producing mills in northern Ontario. During the past year or two, for instance, the following mills have ceased to operate or have been destroyed by fire: The White Pine Lumber Company's mill at Blind River, Ont., which as a rule turned out about 18,000,000 feet; Waldie Bros.' mill at Spragge, Ont., which had an annual cut of about 22,000,000 feet; Graves-Bigwood & Company's mill at Bying Inlet, which had an annual output of about 50,000,000 feet; Carney Lumber Company's mill at Owen Sound, with an annual production of about 10,000,000 feet; Keenan Bros.' mill at Owen Sound, with an annual production of about 4,000,000 feet, and the Parry Sound Lumber Company's mill at Parry Sound, with an annual production of about 30,000,000 ft.

It will be seen from the above figures that there is a shortage of some 134,000,000 feet, as compared with the cut of a few years ago. This will make a great decrease in the quantity of box lumber placed upon the market, in fact it has already been a most important factor in the box situation in Ontario. Those who are in a position to form an opinion upon the probable quantity of timber cut in the woods during the present winter report that it will be considerably less, even than during last winter, so that a further decrease in the output of the mills in Georgian Bay district may be expected next summer.

The Cost of Producing Box Lumber

It would be wrong in considering this situation, to imagine that the lumber manufacturer was getting more for his box lumber than a fair price. Anyone who is acquainted with the trade situation to-day, will admit that lumber manufacturers are at last securing only a fair return for their outlay after having gone through a long period of depressed prices during which they could not obtain even the cost price for box lumber. The cost of stumpage and the expense of logging operations have both increased greatly of late years and lumber manufacturers, although they are securing prices which are so much better than they were a few years ago, are really only doing a fair business from the financial point of view. One of the most important factors in the increased cost of operation in the woods to-day is the fact that lumbermen are taking out much smaller logs than in former years, and the actual cost of handling 1,000 feet of lumber when it is in the log state is greater than it used to be. It will readily be seen, therefore, that so far as the lumberman is concerned, the high cost of box materials represents nothing more than a fair return on his investment.

The effect of this situation upon the manufacturer of lumber is in many respects duplicated by its effect upon the box manufacturer. The manufacturer of boxes finds that the actual cost of the lumber for making a five-foot box has increased about half a cent. This does not represent the whole of the increased cost, as he finds that along with the increased cost of box lumber there has gone a lowering of the grade so that there is a greater waste in the making of boxes than there was before. With this situation to face, the box manufacturer has had only two solutions available for his troubles. He must either increase his charge to the box consumer or go out of business.

How Can the Situation be Improved?

Raising the price of the box to the buyer is not so simple a matter as it might appear at first. The man who uses the boxes is in the habit of considering that he sells only the contents of the box and gives the balance away. The consumer of boxes has not been accustomed to considering the cost of the box when estimating the selling price of his goods. Recent developments will make it necessary for the man who buys boxes to see that he gets value for them in the price which he obtains for the goods that are shipped in them. The low cost of the boxes was the only reason why this has not been done in the past. Box lumber is not likely to become cheaper again for a long time and the price of boxes is almost certain to show a gradual increase until it reaches a figure which makes the manufacturing of boxes profitable. About the only thing that can make this advance come about within a reasonable time will be that the users of boxes will estimate the cost of the box in the cost of their goods and thus be enabled to afford a reasonable price for the box.

One of the box manufacturers in Toronto, during a discussion of the subject, suggested that the box using firms in Canada ought to follow the practice of European firms, making a charge for all boxes. Many business houses in this country receive a definite charge on their invoices for the box and also for packing the same. There is good reason for adopting some such plan in Canada now that the cost of producing boxes is so much greater than it used to be. In cases where freight rates on empty boxes are not excessive it would probably be feasible to make a charge in the invoice for the boxes and allow a credit for them when returned.

Taking the situation in its various aspects it seems certain to-day that the price of boxes has gone up to stay up, as it will be impossible to secure cheap box lumber in the future. An advance much further in the cost of box lumber may bring into the market some substitutes in the way of lumber from the Southern States. This would check the advance of prices though it could scarcely be expected to reduce present prices. A manufacturer who has been looking into this closely states that at present prices the southern lumber proposition has no attraction. Apparently the user of boxes will have to pay higher for them in future and this little extra expense will become one of the factors in the increased cost of living.

Piece-Work System in a Large Handle Factory

By G. D. Crain

It begins to look as if the last word will never be said on the subject of piece-work. The difference or opinion that prevails is so marked, and the experiences which have been recorded are so opposite in character, that it seems certain that no hard and fast rule can be laid down as to the merit of the plan as applied to a wood-working proposition.

There is no doubt, however, that if the character of the work is such that the system can be used without danger of causing a deterioration in the quality of the output, the manufacturer is sure to be the gainer. The one big advantage, that of being able to figure costs with absolute accuracy, and without being forced to estimate labor expense, as is the case when no such plan is used, is alone sufficient to swing the balance in favor of the plan of paying by the piece instead of by the day. And in these days of sharp competition, it is just such accurate figuring that is necessary to land the business.

Piece-work seems to be the basis of a first-rate cost system, or, to put it a little differently, a cost system that is worth its salt usually brings out facts about the cost of labor on each piece, and thus enables the operator to get at a true basis from which to figure. It seems to be the consensus of opinion that few plants can use piece-work throughout, the character of the work in each department having to be considered, and, on the other hand, there are few where it cannot be applied to advantage in certain lines.

The writer recently visited one of the largest handle factories in the world. The plant covers several acres of ground, and operates scores of machines. Its warehouses are extensive, and it carries immense stocks of material and finished goods. The variety of operations, the number of employees and the extent of the business are such that it would appear that piece-work would be more or less difficult to use, yet those connected with the industry assert that it is practically the only system that has been used in the past twenty years, and that they would not consider paying their men by the day.

The only branch of productive labor that is paid on the day basis consists of the men at the saw. They take the bolts or billets and cut them to dimensions before they are put on the lathes. This work involves handling a great variety of stock, and as the lots which are manufactured are usually of special sizes, two or three dozen in each lot, it follows that constant changes in the adjustments have to be made, and that applying piece-work would result in more or less confusion. The result is that these men are paid by the day.

The lathe operatives, as well as the finishers and grinders are all paid by the piece, and in these important manufacturing departments, where the chief cost of production is centered, the plan has been found to be splendid. Every man does a full day's work every day, and there is no complaint of overwork. One man frequently handles three lathes, as he can easily do this by proper attention to his work. The operator probably would object if he were given charge of but two lathes, on account of the reduced output which would be secured. If these men were on day work, however, it is more than likely that some of them would think that the company was asking too much of them in requiring them to run three machines at once, and would incline to sulk. As it is, they are "on their toes" all the time, and their work is A-1 in all respects.

The finishing and polishing departments are extremely important, because the proper application of these processes determines the appearance and largely the value of the goods. If a man slights his work, he cuts down its value to a marked extent, and it would seem that if there were ever danger in putting men on a piece-work basis, it would be here. Yet the company asserts that its percentage of rejects caused by improper work in these departments is remarkably small, and officers of the concern believe that if day work were the plan, the number of poorly-manufactured handles would be considerably greater.

The whole story, as far as keeping the quality up is concerned, may be told in this word: inspection. The company, which has an unusually strong place in the handle field, and has a trade extending all over the world, is compelled to exercise extreme care in the production of its goods. At every operation the work is inspected, and poor specimens are ruthlessly thrown out, and are neither reworked or degraded. The inspection is in force not merely in one department, but before and after each process, and the final inspection is made just before loading into cars for shipment.

As a matter of fact, this system of inspection would be necessary to the proper manufacture of handles, even though day work were the basis upon which the efforts of the employees were paid for. In fact, it is believed that if the men were paid on a per diem basis, the percentage of rejects would be larger than it is. Now they know that any fault of theirs will be immediately turned up, and their earnings will be affected by any failure to do their work properly. If they were getting so much a day, without reference to production, the chances might favor a letting up of vigilance and a lowering of the standard of effort, with the natural result that the quality of the work would come down and the number of low-grade handles would increase.

This seems to reverse the usual order of things, for in most cases the manufacturer who has thrown out the piece-work system has done so because of the deterioration in the quality of the work. Thus the statement made above, that the vital point in the proposition is careful and efficient inspection, seems to be correct.

The system in use in this factory does not increase the amount of clerical work, nor require anything of this sort to be done by the machine operator, and, in fact, the latter turns in no reports at all. A record is kept of the movement of unfinished stock from the warehouse to the machine room. The number given to each lathe is recorded, and the man in charge of this work must see that the number he takes away balances with that brought in. If there are any defective goods, they are thrown out and a separate record of them is kept. The record turned in at the office is for the production of each lathe, which carries a number, and the work of the individual operator is thus kept tab on.

Another important point is that poor work is not an issue between the factory and the individual employee. It is a question between the foreman and the house. The manufacturer looks to the department head for good work, and if he does not get it, it is evident that he is not keeping sufficiently close watch on his men. In the lathe room, for instance, the patternmaker and his assistant are, ex-officio, foremen of that department, and they supervise the work carefully and see that it is not only well done from a mechanical standpoint, but that the correct measurements are maintained. Not a handle leaves the department unless it is properly manufactured.

The non-productive labor in the handle plant is on the day-work basis. It is conceivable that they could be put on a system whereby they would be paid according to the amount of goods handled, but here again the question of difference in sizes and kinds comes up, and the effort to pay by the piece would involve a vast amount of clerical work. Another department in which day work is used is that in which lumber is cut to size for use in crating. It is likely that the piece-work system would work to advantage here, though the plan of paying by the day has always been used. The Wood-Worker, Indianapolis.

Saw Speeds for Hard and Soft Woods

In general practice it is not customary to change speeds for different woods in mills where lumber is manufactured, says a writer in the Timber Trades Journal, but it is a manifest impossibility to carry the same feed in hardwood that is carried in softwood. The reason for this is evident to almost everyone who has had experience in the business. The "texture" of one wood offering a greater resistance than another necessitates a reduction in some direction to equalize the strain on the cutting tool, and usually the reduction is brought about by a reduction in the feed. There is a fixed scientific principle covering the question of speed, and there is still a great deal of room for improvement in lumber manufacturing methods through proper scientific experiment and research into the very important question of adaptation of speed to other conditions. The majority of sawmillers seem to work on the principle that the higher the speed the greater the capacity of the mill. Further, machinery manufacturers often encourage the millmen on the high speed proposition, and this view has held good so long that it is accepted without question, with the result that speeds in many both hard and soft wood mills are unnecessarily and injudiciously high.

The foregoing being granted, it is evident that the usual speed carried in large modern mills is not a proper basis to work from, for hardwood speeds. Excessive speeds are not to be advocated, and notwithstanding the fact that many millmen carry a circular saw speed ranging from 12,000 ft. to 15,000 ft. rim motion, and a log band mill speed of 11,000 ft. or more, experience and observation have demonstrated that a greater capacity and better lumber can be produced through the operation of moderate speeds. All points considered, there is no advantage in running large circular saws at a speed in excess of 11,000 ft. rim motion per minute, and I place the maximum judicious speed of log saws at 9,000 ft. per minute.

In support of the above, it may be mentioned that high speed invariably necessitates high tension in circular saws to offset centrifugal force, and detracts from the "standing up" qualities of the saws, while in band saws excessive speed increases the vibration and elastic "overthrow" of the saw out of all ratio to the excess speed and causes it to run in the cut under the slightest provocation.

According to estimates of the Northern Pine Manufacturers Association the timber cut in Minnesota for the year 1912 will total 2,000,000,000 feet. This includes all the hard and soft woods and that small enough to manufacture into laths.

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The Latest and Most Modern Method for Obtai

A cost of 75c per thousand feet board measure

In many sections of the country, East and West, in spite of the utmost care in sawing, there accumulates a vast amount of common lumber 3″, 4″ and even 6″ wide which at times it is almost impossible to move without cutting the price several dollars per thousand. Most lumber manufacturers would be satisfied were it possible to obtain from their narrow width common lumber the actual cost and in most instances in order to move the accumulated stock quickly they are compelled to sacrifice.

By the Linderman method two 4″ strips can be joined to make 8″ shiplap at a cost which will not exceed 75c per thousand feet and a comparison of the figures between 8″ shiplap and 4″ common lumber at what it is sold for adding to it the cost of joining it together by the Linderman method and the cost of milling it, leaves a net increase in price of from $2.50 to $4.00 per thousand. 10″, 12″ or even wider widths can be built up in the same manner and at the same cost per thousand, no matter whether the lumber being worked is spruce, hemlock, fir, cedar or pine.

Narrow lumber can also be joined together for rough sheathing, partition work, barn or subflooring and other purposes.

There are eight different lengths of Linderman Machines built to work sto

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Shorts and odd lengths can be joined to narrow widths making a composite board of any length desired up to 16'. This is accomplished by running a binding strip on the outside the full length desired and joining to it two or more pieces of miscellaneous lengths that will equal the length of the binding strip. To this can also be joined another series of short lengths so arranged that the butt end joints will not come opposite one another and to this then can be joined the second outside binding strip. Such a composite board will show tight joints not only where they are joined together on the edges but the butt ends of the boards will be tight making a board as strong or stronger than the natural wood. Such a product, while it may not bring a price equal to a wide board of the same dimensions, will yet yield a profit of several dollars per thousand over the cost of manufacture. In this way the cuttings from the flooring machines or from the saw mill can be converted into a marketable product instead of as now being sold for kindling or sent to the burner.

Full information and particulars in detail will be gladly given and we will arrange to work samples of your own stock if you so desire.

up to three, four, six, eight, ten, twelve, fourteen and sixteen feet long.

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THE WOODWORKER

Fire Protection for the Woodworking Plant

By James Francis

Fire protection for small or isolated shops has worried the writer considerably very many times, and it must be confessed that the average woodworking shop is sadly deficient as regards fire protection.

Hardly one shop in a dozen is equipped with fire-fighting apparatus of any kind, save perhaps a few barrels, supposedly filled with water, but which contain usually a lot of sawdust and many foul smells where water has become thick with dust and contaminated from the organic matter composing the dust which found its way into the barrels.

Fire barrels are mighty good things and they have saved more than one shop in case of a fire starting, but like other things the barrels must be kept in shape by eternal vigilance on the part of the factory manager, superintendent and foreman. It will require the united authority of the three "powers that be" to keep fire barrels constantly filled with fresh water.

So great is the care and cost of keeping up the very slight protection afforded by fire barrels and buckets that it is the belief of the writer it would be far better to put the same amount of time and energy into the upkeep of a fire system which would be of some value after the fire got under some headway.

Preservation of the Fire Protection

To this end, the placing of a few lines of pipe, with hose connections and a supply of hose, would be better far than the fire barrels, but it is even more of a task to keep hose in fire-fighting condition than it is fire barrels and their contents. In fact, there cannot be found two shops out of twenty-five of those equipped with hose and water systems wherein the hose is of any value whatever when a fire calls suddenly for the use of hose and water.

What then shall the woodworker do to be saved from fire loss? What "system" can be installed which will not require constant supervision, frequent renewals of parts and the combined efforts of each and every man in authority to keep the apparatus in condition for fire service? Alas! Echo can't answer this question if it tries, for there isn't any answer!

But there is a way of protecting the shop which, though somewhat costly, may with reasonable hope of its being "on the job" when fire breaks out. This system is that of automatic sprinklers, the "dry" method being far preferable for wood-working shops.

Sprinkler systems may be installed which will "drown" out any fire which may start beneath them. I was recently in a factory in which the automatic sprinklers were so quickly located that it was stated they would deliver water enough in fifteen minutes to fill the room six inches deep! Not much chance for a fire to get along under that wet blanket!

But for the proper operation of automatic sprinklers there must be a sufficient water supply, under pressure enough to work when all the sprinkler heads are open. When "city" water is available the problem is easily solved, but for isolated plants, far from pressure water mains, dependence must be placed upon individual water works, and this brings up the matter of fire protection and steam pumps.

Pumps, Pressures and Engines

Usually a duplex steam pump is installed to furnish the required water pressure. This kind of a pump will do the work as far as volume and pressure of water is concerned, but it is about the most costly method of pumping water that can be used! Ordinary steam pumps of the duplex variety consume from 100 to 400 pounds of steam per horsepower each hour. The great amount of steam required is due to the fact that both cylinders take steam full stroke at full boiler pressure—or as near as the pipe arrangement will allow.

The shop engine, on the other hand—a common slide-valve engine at that, requires only 30 pounds to 100 pounds of water each hour per horsepower, according to the condition of valves and cylinders. This is sure some saving over 100 to 400 pounds of steam per horsepower hour! Steam pumps are usually specified for fire service on account of their convenience and on account of the fact that they can run, in case of fire, long after the main engine-room of the factory has been destroyed and engine-power put out of business.

Where to Put the Pump

A fire pump located in a woodworking factory is a rank proposition. It should by all means be located outside in a little building of its own. In city locations, where it is impossible to thus locate the fire pump, it should be placed, together with the boilers, in fire-proof concrete chambers with sufficient strength of wall and ceiling to withstand the impact of any adjacent walls or overhead floors which could fall upon the rooms in question.

A fire pump can never be depended upon unless it is kept running all the time. That is a well demonstrated fact. Any pump, either steam or of other kind, which is used only occasionally and in case of fire, will surely fail at some time of great emergency. No, the only way to keep a fire pump in condition is to keep it moving slowly all the time. Let it run, actually pumping water, but barely moving. In that way, and that way only, can a pump be kept in known condition for immediate fire service. And at that, repairs to the pump must be zealously looked after. Leakage past pistons or valves must never be tolerated, or the pump will fail in capacity in time of greatest need.

There is a way of maintaining adequate fire protection without keeping up a wasteful steam pump. In fact, there are two ways. One is to put in a belted pump or a geared or direct-connected pump and instal an engine with it of modern efficiency, say a small automatic engine which will work with less than 30 pounds of steam per horsepower hour. This arrangement permits a steam-pipe connection to the fire pump, same as when the duplex was used, avoiding failure of the fire apparatus by destruction of the shop engine-room.

The other way is to install a two-stage centrifugal pump, which is now available for fire service, and in fact for all kinds of high service business, including boiler feeding. This pump may be direct-connected to a steam engine and avoid all the constant trouble of piston packing and renewal with which steam pumps have been afflicted ever since there was a duplex pump.

The two-stage centrifugal pump also lends itself easily to being driven by an electric motor, and when current can be obtained from outside it forms an ideal fire-pump power arrangement. A very good way of connecting up the pump motor in an electrically driven wood shop is to put in the necessary double-throw switches which will permit, by merely throwing the switch-levers, to run the fire pump either by electricity generated by the shop engine or by "city" current.

Connected as above, there is almost a certainty that power will always be available at the fire pump and the insurance premium should be quite low with such an arrangement of fire pumps. It may be added that what has been said above regarding the cost of pump service for fire purposes is equally true of boiler feeding. The steam pump is the most costly way known of feeding a boiler, and the woodworker who desires to trap one of the "little thieves" described by Mr. Hobart in the July Wood Craft can do so by throwing the steam pump out of the shop, root and branch, and installing in place thereof either belted or electrically driven pumps, either rotary (centrifugal) or belt-driven reciprocating.—Wood Craft.

An Electrical Wood Sawing Trouble

The applications of electricity to factory purposes is not always unattended with difficulty, one of the chief troubles being due to the fact that in many cases it is very difficult to gauge the amount of power taken by a piece of machinery when it is in operation. It is true that the makers in their catalogues often give a figure for the horse-power taken by their machinery of different sizes, but such figures must necessarily be of a more or less approximate value, inasmuch as the work thrown on to an electric motor attached to such machinery varies with the class of work done by the plant, and the kind of material operated upon. Moreover, it is often found in factories that machines are frequently considerably overloaded, the work building up as the output of the factory increases. Hence manufacturers' catalogues are not always to be relied upon in installing electrical machinery. In addition to this there are often peculiarities with respect to the requirements of the drive which may not at first sight be appreciated, with the result that a certain amount of trial and error is necessary before an actually satisfactory run is obtained.

Where due account is not made of such circumstances there is a danger that the owner of the factory may come to premature decisions with regard to the availability of electric power for his purposes; and thus an electrical plant, if it be an innovation to him, may receive a stigma which it does not deserve. Due account should therefore be taken of these factors; and in order to illustrate how very real they are, it will be of interest to describe a difficulty which

was experienced in connection with the installation of electric power in a wood-working plant.

In connection with this installation, one of the requirements was to fit an individual drive to a log frame, used for the preliminary breaking up of the timber subsequently used in the factory. It was at first estimated that a 15-h.p. motor would be amply sufficient for the purpose. A shunt-wound machine was therefore fitted, but it was found that after a few hours' work the motor began to run very hot. In addition to this it was found necessary, on starting the motor—which was arranged for a direct belt drive—to pull the band round a little to give the motor a start; and on an ammeter being inserted in the motor circuit it was also discovered that a very excessive current was taken at the start. From the commencement this part of the installation was not satisfactory, and finally it was giving so much trouble that it was thought that the motor was seriously overloaded, and it was taken out and replaced by a 20-h.p. shunt-wound machine.

Even when this change had been effected it was still found that it was necessary to pull the belt for a short time in order to get the motor away, and the starting current was still very high. This pointed to a radical change in the design being necessary, and the 15-h.p. motor which had been scrapped was overhauled; and in order to overcome the lack of initial torque the field windings were compounded. This motor was then put back in place of the 20-h.p. machine, and it was found on switching in that it started right away without assistance, and also without the excessive starting current which was before noticed. Evidently in this case the trouble had been due to the fact that as the log frame was in the nature of a dead load on the motor from the very commencement of operations, and also as the saw was a reciprocating and not a circular one, the effort of the motor in starting up against the load and in getting the saw over its dead centre was too much for a shunt-wound machine. Hence it had a very weak field in starting, and a low torque. The compounding of the field windings effected the removal of all this trouble.

This is a case where, if the owner of the factory had been of a hasty disposition, he might have condemned the application of electric power for heavy purposes on the strength of the initial difficulty in starting up. But subsequent experience showed that very great economies were gained by using electricity in this particular instance, and the incident therefore goes to show that hasty judgments should not be given on motors of this sort until the necessary experiments incidental to every new installation have been tried.

A Panel Man's Argument

One of the good arguments which the panel manufacturer has in favor of his business and of the furniture manufacturer buying panels already made for as much of his work as possible, is that it insures time for the material to dry out or season between the time it is made and the time of the finishing in the factory, says the Hardwood Record. The furniture man can, of course, make up his panels ahead of time and let them season, but too often he does not, and unquestionably much of the fault that develops in veneered furniture is due to its having been finished off before the panels were thoroughly dry after the gluing up. Moreover the same trouble is found in solid furniture—that is, there are many instances of the finished article proving a disappointment because the lumber was not thoroughly seasoned when used and finished off. Because of troubles like this, the panel man argues that the furniture man can get better results, and often save money at the same time, by getting his panels from one specializing in panel manufacture, instead of making them himself. There are other arguments, too, such as the economy in manufacture and the high degree of perfection in work obtained through specializing, but the one that is the subject of this discourse is that which has to do with insuring dryness of stock when it is used.

The wise panel man not only figures on his panels drying out thoroughly before the furniture man uses and finishes them, but he also looks in the other direction and seeks for assured dryness in his own raw material. He carries a big stock of lumber ahead for core work, to insure thorough seasoning. Where possible he also makes up enough core bodies in advance so that they will have time to dry out after gluing up before putting on the face veneer. Or, if he makes a core of built-up veneer, this should really be thoroughly dried out before the face veneer is put on. The moisture resulting from gluing the face stock on should have time to dry out before the panel is used, which it presumably does between the panel plant and the furniture factory.

A lesson for both the panel man and the furniture manufacturer in this argument is that they should carry a good stock of raw material ahead. That is the one thing that makes possible thorough dryness, and prepares stock for working. When there was no car shortage and lumber was easy to get promptly, there was a natural disposition on the part of both panel men and furniture manufacturers to run with lighter stocks—to follow a sort of hand-to-mouth policy—because by doing so they could operate with much less capital and could save money ordinarily tied up in a big stock of raw material. The truth of the matter is that if there is any force in this panel-man's argument, it applies just as strongly to the raw material end as to the panels themselves. There should not only be plenty of lumber on hand, but a lot of it should be kept dried ahead and tempering in proper sheds to get out of it the moisture that comes and goes with the weather. Or, to put it another way: this argument means that the maker of furniture and the maker of panels should carry ahead much larger stocks of raw material, both lumber and veneer, than they ordinarily do, if they want to insure quality in their finished product.

One can often band-saw two or more thicknesses quicker and better than one, and can generally nail the pieces together, outside the pattern, in such manner that the nails will hold them until the last cut is made. Nailing inside the pattern is not only open to the objection that it mars the work, but pieces at all slender are liable to split in taking them apart.

Could Cut Six Billion Feet Annually in B.C.

The British Columbia provincial timber officials have just completed an estimate, which shows that one billion feet of timber per year is cut in this province. The same report states that six billion feet had been safely cut without diminishing the supply. The rate of cutting could be, therefore, increased six times and kept up for ever without depleting the supply, according to the statistics.

Personal Lumber Trade Items

Sir Rodolphe Forget, Montreal, has retired from the Board of the Wayagamack Pulp & Paper Company.

The W. C. Edwards Lumber Company, of Ottawa, gave 2,000 of its employees a day's holiday and transportation and ticket to the Central Canada Exhibition here last week.

Dr. B. E. Fernow, Dean of the Faculty of Forestry of the University of Toronto, has returned to Toronto from his trip to the Pacific coast, during which he attended the recent convention of the Canadian Forestry Association at Victoria, B.C. Dr. Fernow also visited California and made a special trip to see the famous redwood trees.

Austin Gillies, the Braeside (Ont.) lumberman, had a narrow escape from death a few days ago when the motor boat, in which Mr. Gillies and a party of twelve ladies were returning from a run on the Montreal River, near Cobalt, caught fire and forced Mr. Gillies to dive into the river to escape the flying bullets from a box of shells which exploded.

S. P. W. Cooke, Charles A. Baker and H. G. Hoppins have formed the Prairie Pacific Lumber Company, Limited, with offices at Moose Jaw, Sask. and Calgary, Alta. They will carry on business as wholesale lumber merchants and will be sales agents for J. Hanbury & Company, Limited, Vancouver, and the North Star Lumber Company, Limited, Elko, B.C.

Mr. W. K. Grafftey, of the Montreal Lumber Company, and Mr. Alex. MacLaurin, of the Campbell-MacLaurin Lumber Company, were present at a meeting of the Montreal Board of Trade Committee on export and interprovincial trade, held on Sept. 19th. The Committee considered the suggestion of Mr. Foster, Minister of Trade and Commerce, that a system should be evolved which would give the Government a close approximation of the figures, volume and importance of interprovincial trade exchange, and that business men of this country should enquire whether Canada cannot enlarge its export trade. Mr. R. Grigg, the Commissioner of the Department of Trade and Commerce, was present, and took full notes of the suggestion.

Mr. G. H. Cowan, of Vancouver, acting on behalf of the British Columbia lumber interests, interviewed the government officials at Ottawa and strongly protested against their action in refusing to collect duty on partially manufactured, or "sized" lumber until the appeal to the Supreme Court from the recent decision declaring such lumber to be dutiable, has been heard. The members of the cabinet who were present did not hold out any expectations that the duty would be collected in the meantime.

W. H. Maxwell, formerly of St. John, N.B., who was for many years engaged in the lumber business of that city, died at Berkeley, California recently, at the age of 76.

A meeting of hemlock manufacturers and wholesalers will be held on Wednesday, October 16th, at 2 p.m., in the Queens Hotel, Toronto.

The Retail Dealer and His Problems

Humour in the Lumber Yard—Handling Hardwoods

Lumber Yard Pleasantries

By the Lumber Doctor

If we were to sit down and think of all the unpleasant things about the lumber business or, for that matter any other business, it would not be a very inviting business to go into, but there are enough of these unpleasantries to make a boy think twice before determining that he wants to be a lumberman.

Well that doesn't make any difference, there are the good things about the business that more than make up for the disagreeable ones.

I just had a little experience yesterday when I was called up over the 'phone and a fellow who had the contract for a little house said, "Are your teams busy?" and, on being told that they were very busy said: "You will either have to send out and get that star flooring or let it go, for it is not even a good grade of No. 1. I ordered No. 1 at first and it would have been all right had it been a good grade of No. 1, but it was a common No. 2, and this star is not even a good grade of No. 1."

Now here I was busy as could be and teams all rushed. What should I do.

My first thought was to tell him to use it for No. 1, but my better judgment prevailed and I took a notion to fight it out. So I said to him, "Now you have the carpenters lay out every board of the star that isn't up to grade and I'll credit you for it." Then he said, "They will have to lay it all out." I said "No they won't," and he said "Yes they will." Then I inquired, "Are you at the building?" and he said, "No," but he finally agreed to go right out there. So I jumped into my new automobile and went out to the job, but no Mr. Contractor showed up. The men were there ready to lay the flooring, and it was fine. I told them to go and lay it, and lay out anything that wasn't just right. They said, "Oh, this flooring is all right. The only thing is that he tried to run in the No. 1 on the owner when star was specified, and was mad when he couldn't do it." Now then what do you think of that. You may find just such a thing tried on you sometime and this will serve to call your attention to it. Investigate it and you will find out that they are trying to work you, too.

Then I had a fellow raise the devil about some cement. I sold him some cement and he made a sidewalk out of it. The next day he called me out to look at it, as it popped up and, like the scab off a sore, peeled off and a fluid iron rust flowed out. The job was done in real wet weather, and I suppose the extraordinary behavior of the cement was induced by something in the cinders. Most "doctors" speak positively, but I am not so very sure, but am still investigating the matter and will ask for more time in which to make final report. I got the blame because I sold the cement. yet the same fellow had been using the same cement out of the same car and had no complaint. The is a cement pleasantry.

We have those applied to roofings, also. Our roofing concern applied a roof under a ten year guarantee. So one time during a storm the merchant whose store he applied it on sent me word to come down and see how the roof leaked. I was learning then, and went. I had no lightning rods at that time and ran the risk of going up on his roof and investigating. I found that the electrical workers had been working on the roof, and had cut out a piece of the roofing 12 inches by 18 inches, and had simply laid it back and poured tar around it. When the sun shone on the patch the tar melted and ran away and the water went through and down into the store. All this was a "Thank you" job for me. All went well for about a year, when during another hard rain the same fellow 'phoned me to come down at once, and I went again. He said: "Just look at the water pouring down onto these goods." I looked—and it was coming down pretty lively, in fact, lively enough for me to go and climb up and investigate. Upon inspection I found a transom leading into the skylight had been left open about two inches. This transom (or rather a window) on a pivot, was regulated with ropes and had swollen a little, and the porter did not take the trouble to pull it entirely shut, so I said to the manager: "Mr. W—, I have made my last run down here. You pay me $1 per hour or fraction thereof when you ring me out on a false alarm." I have never been called out since. (N. R.—Take notice how that brand of roofing was kept free from fault all through the deal.) That was a roofing pleasantry.

Paint? Yes, you want to know just one about paint. Guess I have a few on that line, but you don't want but one, for you have had the others happen to you.

Well, a fellow came in and bought some flat or velvet finish paint, asked no questions, and in a couple of days came in again and just raised the devil about it. Said he could rub it all off with his hand after it had dried.

I was awfully busy, but I stopped everything else and went out with him and found that he had put the paint on an old greasy wall that had been painted with oil paint, and one really could wipe it off with one's hand. I asked him why he had not told me about it, and he abused me for not telling him without his asking it, and said he would not pay me for a bit of the paint he had used until I gave him oil paint with which to replace this flat paint and had allowed him $2.50 for the work of putting it on.

I wanted to profit by this, and so I asked the next few fellows who bought paint, positively, what they were going to do with it, and what they were going to use it for, and they told me just as positively, that it was none of my business so long as they paid for the paint. Now, then, I hummed, "That's gratitude, yes, gratitude."

Well, I could go along this line and tell you all you would want to listen to, especially about side lines. But what's the use.

Loans

Have you ever noticed how the lumberman is always considered the "good fellow" in a community.

How much each year are you being imposed upon? How many dollars worth? I have not counted it all up, but I put myself at least $100 worth to the good every time I start to count it up.

The last thing in that line I have done to "stop the leak" is to issue an order, July 1st, as follows:

"Rule No. 77: Our heavy loss of fence stretchers and ladders has compelled us to adopt the following rule which will be in force on and after July 1, 1912. Advise and charge everybody 25 cents per day for first day and 5 cents per day for each additional day for every fence stretcher loaned; ladders 25 cents for first day and 10 cents for each additional day. This means that this must be enforced, and any employee who violates this must pay the rent himself. If a neighbor wants to borrow a ladder, get permission, but don't violate the rule." Then I had each one sign it.

I believe I can take anyone to my pile of ladders and show them that I am justified in doing this, for no less than a dozen had been used and will have to be sold at a sacrifice. Why should the lumberman have to stand for this? Why do we have to loan stuff for dancing floors, revival meeting benches, run boards for painters and scaffolding to paint churches? There is no reason why we should, but we do it—and they ask us to please lend it to them, and to come and get it.

But still it is a good thing to be called a "good fellow," and we would feel slighted if they did not call on us for our part of the accommodation work. But, on the other hand, if you watch your chances, you can make some nice money renting stuff out. But you have to have the backbone to charge, and to stick to the charge, in order to get the profits.

Keeping Stock

If a farmer drives into your yard with a couple of old "skates," with harness tied up with ropes and strings, and looking like they had not been curried for a month, and an old rickety wagon that looks like it would not bear up under a bundle of shingles, and had not been painted for a couple of years—you would not think he was a very good stockkeeper, would you? Well, I guess not. Now, then, there are others.

What does the well-to-do farmer think of you as a stock-keeper if you have your dimension lying topsy-turvy, all kinds of ways, and getting more crooked each hour of the day, and your flooring all scattered about twisting and getting dusty; your shingles all broken apart, and lath lying loose by the bundles, just as if they did not cost a cent a bunch; a lot of windows lying around with broken glass in them, and doors with panels broken out and so dusty and shop-worn that you can't tell if they are white pine, or cypress or redwood?

Then you will find piles of boards, dimension, sheathing, lath, flooring, ceiling and partition all on one pile; all kinds of molding all mixed up together. You will also find (Oh goodness, deliver me from that condition) some cement, lime and plaster-of-paris bins in which hundreds of dollars' worth of sacks are going to ruin and any amount of plaster and cement going to waste—all through a lot of careless fellows whose boss hasn't the ability to check this wanton destruction of property.

Now all these things most of you are guilty of—aren't you? You would raise hades with your poor wife, who is ten times better

than you are (I consider mine twenty times better than I am) because her house is not "up to snuff" if you should bring some fellow home to dinner unexpected to her, no matter if it were wash-day, house-cleaning time, or even if she wasn't well. Now you know it; be fair and be a man and admit it.

Then why aren't you that careful with your lumber yard, when people come in unannounced every hour of the day? Why don't you make your help clean up, and keep cleaned up?

I have a pretty clean yard, but I have to keep raising the devil with my yardman all the time about it. But I'll tell you confidentially that it isn't the Cain I raise as much as it is the nickles I fine him for not doing what I want him to do that keeps it clean. That's what counts. If he would read the lumber journals more he would get fined less, and draw more salary; and they are not hidden from him, either. Well, I will keep up the fines. The millenium will be reached when he understands what I want done and how I want it done.

Let's all try to keep our runways and driveways clean. It grows upon us, and gets to be a habit, just as the moss grows upon our backs if we don't keep up with the times. Let's blaze the way for the other merchants, not follow. I claim that I conduct my lumber yard and paint tore on as advanced a principle as others dare claim that they conduct their dry goods emporiums, their furniture stores, their grocery stores, their churches, their drug stores, or their saloons.

There is no excuse for the follow to put off his improvements. This thing of being on leased ground, waiting for a good crop, and moss-backism, don't go. Get off of leased ground onto your own ground; get into new quarters; get a better location; get the business—for if the stuff is in you it will win out for you. But when you undertake a thing, and say you are going to do it, then do it.

Sweep up, clean up, and have a way of keeping your stock that people will talk about, and the advertising you will get out of it will pay for the expense of keeping it in good shape.

Keep your piles of lumber, sewer pipe and all even across the top, and then they won't pick over them. No one picks over our piles, because they are so nice and straight that every piece looks nice. Now this sounds conceited, but it isn't. Try it yourself, but don't tell your employees that they must keep the piles straight and then go out and turn them over yourself. Practice what you preach and you will have better luck carrying it out. Now just think if you were to go into your local store to get a pair of socks and you should pick up a pair that looked like some "hobo" had tried them on, or if they were torn from handling. Well the people will have just the same right to think of your lumber that is split up, shop-worn, dustry, and the like, that you will have of their socks.

Some people don't care, but the majority are like you and I; they have a chance, and they take it.—The St. Louis Lumberman.

Neglect of the Planing Mill Resaw

By H. J. Kutz.

If anyone should travel all over the country among the saw mills at the present time, he would find nearly every one with a planing mill connected with it and in that planing mill he would find, in nearly every place, a resaw also connected with it because you can fill more orders of mixed stock and therefore more lumber can be disposed of than at a place where they haven't installed a resaw. To make a long story short, lumber companies find that a resaw pays. Instead of the other fellow resawing your lumber you can do it yourself—you can load more on a car and make more money.

But what I want to get at is the neglect some filers give the resaw because they consider it a secondary affair and a regular nuisance and the result is their employer buys just a few more saws than necessary and the cost of resawing is just a little more than with the filers that try and keep the little resaw in the same condition he does in the log-sawing mill.

I hate to acknowledge it, but I myself used to neglect my work a little on the planing mill resaw—i.e., the bench work and I had a few too many cracks and the saws were changed too often. The consequences were a new saw now and then where I might have prevented buying about one saw out of four at least, but it only took me about four or five months until I saw my mistake and ever since, I pay just as much attention to my little 6-inch resaw as I do my other 12-inch bands and 8-inch resaw in the mill.

I have been at a number of mills and about all had a small resaw and in every case I found the filers neglecting that part of their work more or less, and by so doing, they actually have more trouble, they have cracks, they have more brazes to make than the filer that keeps his resaw in good shape.

The reason these saws are neglected so much is nearly every time the big saws are changed the planing mill men also change their saw, and it causes that extra work, which isn't very agreeable to a filer especially if he wants to do bench-work on his big saws or has a braze to make—so in order to get rid of his resaw he grinds it up just as quick as possible and the resaw is obliged to run time after time without being looked over on the bench and therefore, it doesn't take long until it goes to pieces.

If filers would just stop to think and realize the amount of work a little 5 or 6-inch resaw does in a day when it's in good condition, and the strain on the blade they would certainly go over their saw more often and also save their employer from buying so many saws and save quite a nice amount of money in the cost of resawing in a year's time.

I file my resaw in about the same way as I file my other saws or on the same principle, only I run a straight back. I am very particular to keep it from getting short or the tooth edge will get loose and make snaky lumber. I don't run quite as much tension as the majority do, but what tension I carry in my saws I have clear across the blade and by so doing I have a better saw than the filer that uses a heavy tension and only tensions up to within 3/4 or 1 inch to the tooth edge. I keep tension on each edge of my saws and when the strain is put on them it makes the edges tight and they run good and when we happen to resaw 4-4 stock twice it won't run out of the cut which is easily done on a resaw within tension on the edges. But one thing I am very careful about is that I don't have too much strain on my saws; because with good even tension clear across the saw and sufficient hook in the teeth a saw doesn't require near as much strain as one with a "run" or tire and little hook in teeth. So permit me to state if this happens to hit a filer that neglects his resaws in the planing mill, don't condemn the machine if your saws don't run good.

Sometimes you find filers condemn the very best resaw machines—in fact, they condemn everything but themselves. It's a great mistake and allow me to say in conclusion, if the resaw in the planing mill isn't doing the work your employer was informed it would do—I say at least 75 per cent.—when he purchased it, the filer is to blame in nine cases out of ten.—Berlin Quality.

Hardwood in the Retail Yard

There is much more hardwood handled through the retail yard now than there used to be, and there may be considerably more if manufacturers of hardwood will study the trade and cater to it. This applies not merely to the woods used for siding and outside trim, such as poplar and gum in the South and basswood in the north, but to hardwood for interior trim and for planing mill work. More of the latter has been use, partly because the majority of retail yard men have put in planing mill equipment, and partly because the public is calling for hardwood. The point has been reached in the retail lumber business where practically every man in it finds it necessary to operate some planing mill machinery.

While visiting a newly equipped small planing mill and stock shed recently, the writer noticed that about a fourth of the planing mill stock shed was given over to storing hardwoods for mill use. That particular retailer was decidedly progressive and knew the full possibilities of his business for he had all the hardwood sorted for widths and lengths. The stock consisted mostly of oak, the mill being located in the South. A northern mill would probably have been stocked up on birch. The advantage in this method of storing is obvious—if a board of given size is required no piles need be torn down and built up again, for it can be gotten at once and without trouble. Further, the lumber is kiln-dried and ready for use when it is put in.

When the retailer was asked about this feature, and if he were able to buy that oak direct from the mill kiln-dried and ready for use, he said he could not, but that he had bought the stock and shipped it to a neighbor in town who owned a dry-kiln, and had it dried before putting it in stock. He explained further that he didn't know where to get stock kiln-dried at the mill, and that he did not feel justified in maintaining a kiln himself, as his concern does only a limited amount of work. His plan is to buy all the material he can use already worked to shape, and simply do the odd and special work in the mill, which is small compared to his retail yard and the amount of retail business done.

To properly take care of this kind of trade, the millman making oak in the South should not only be equipped to kiln-dry the lumber, but he might go further and fare better by putting in a machine or two so as to make oak casing and base to popular patterns and get retailers to carry it in stock the same as they do pine, and as they are beginning to do in birch. Then if the millman wants to work some of his low grade oak into flooring, it gives him a chance to drive a trade in mixed cars to the retailer, probably consisting of some dry stock to be carried rough for his own millwork, some dressed casing and base, and some flooring. There is a good field here—a field that may not look big in individual cases, but which collectively is very desirable. It is a market from which the oak millman can get more trade if he will go after it right. Trying right in this case "sounds like" dry-kilns and a planer at the hardwood mill, a thing that many in the trade have probably been avoiding too long.—The Hardwood Record.

The Year's Progress in Logging Science

Increasing Use of Electricity as Power in the Woods—Fuel Oil for Locomotives—Secretary Corwall's Report at Recent Logging Congress

Considerable progress has been made during the past year in the design of motors adapted to the heavy duty involved in logging operations. The utilization of a portable electric power plant for supplying the necessary current to operate isolated camps located at remote distances from power lines, or situated where it would not be compatible with economy for the camp to develop the necessary power, may prove a subject worthy of discussion. The commercial power lines should lend every encouragement in providing power for logging camps at moderate rates. The use of electricity in the woods will undoubtedly in the near future furnish a very large and profitable market for power.

The use of fuel oil in locomotives has been steadily on the increase for several years past, but it is only during the past year that any well-directed effort has been made towards utilizing fuel oil for the generation of steam in logging donkeys. The demonstrations which have so far been undertaken have proven eminently successful, both from the standpoint of a reduction in operating costs, higher fuel efficiency and in marked reduction in the fire hazazrd. From every standpoint the use of fuel oil is to be commended and I am quite sure that this subject will be discussed with intense interest at this session.

Compressed Air for Lowering Rigs

Several years ago the successful installation of a hydraulic log lowering machine was accomplished at Rainier, Oregon. Following this came the use of steam lowering rigs, one of which is now successfully employed lowering logs in the pine belt in California, a distance of some 5,500 feet, on a grade of fifty per cent.

The use of compressed air in a snubbing rig is something entirely new in its adaptability to logging purposes, and the presentation which will be made on this subject marks one of the innovations in the logging business.

The addition of an air compressor to the equipment of the modern logging engine, making available the use of pneumatic tools in railroad and trestle building, has already proved its value.

In this connection it is interesting to note that a patent has been granted for the application of air on detached logging trucks. This is a subject which has been given considerable attention from time to time, and if a solution has been reached it marks an important advance in the handling of trains on steep grades through the utilization of the detached logging truck.

The Northern Pacific and Chicago, Milwaukee & Puget Sound railroads have been testing out the various car bunks and stakes, with a view of equipping their flats for hauling logs. The essentials of a bunk are ease of operation, simplicity of construction, adaptability. Through the use of the automatic stakes the danger incidental to chopping the old wooden stake is obviated, to say nothing of the reduction of the time necessary for unloading cars, under the old plan. It is pleasurable to note that this step has been taken by the railroads in advance of any legislation which would most certainly be enacted in behalf of safety of the employee. The attitude of the railroads in this connection cannot be too highly commended.

Sanitation in Camps

An army travels on its belly. The same conditions apply to the industrial army, of which the logger is a conspicuous type. There probably has been no further advance made in the progression of the logging industry than the advancement which has been noted in the feeding, housing and care of the men. It pays to see that the men are regarded as more than inanimate objects. They have hopes, aspirations and a life to live; and in rounding out their lives it should be the aim of every logging camp operator to see how far he can go to surround his men with the ordinary comforts of home life, bathing facilities and a good bed, and as a consequence their tenure of service will be lengthened; and accidents become fewer, due to familiarity with the work in hand, to say nothing of increased efficiency.

Experience has shown that there is no food which can be partaken of by a hearty, strong man at 6 o'clock in the morning which will enable him to keep up the stroke continuously until the noon hour, without diminishment and impairment of his energies. It has been suggested that if some plan could be devised whereby the men could be fed in the woods a snack at about 10 o'clock, accompanied by a cessation of labor for a few minutes, and the same repeated at, say, about 3.30 in the afternoon, providing for only 30 minutes at lunch, that it would increase the output and conserve the energies of the men.

In all cases the food should be taken directly to the men, so as to save their energies for work instead of being needlessly exhausted through long trips from the scene of operations to the cookhouse. Too much stress cannot be laid on this matter.

Another point which is worthy of careful consideration is the providing of a heated car, to convey the men between the camp and the woods. To take men out in cold, wet weather, riding the hurricane deck of a flat car or straddling the bunk of a logging truck, is not calculated to increase the efficiency of the men whose bodies are chilled by this course of procedure. This is not only humanity but economics.

Community Welfare

Experience is proving that where camps are going to be permanent that it is well to secure as many married men as possible, and as the land is cut over, the more suitable portion be sold to the men for homes at low figures and on long time. The best cure for the I. W. W. plague— a people without a country and without a God— is the cultivation of the homing instinct in men.

Universities

The recognition of logging engineering as a distinct branch of mechanical science, is one of the actuating principles behind the creation of the Logging Congress. The hydraulic, electrical, gas and steam engineers have a distinct place in science, but to none of these departments of endeavor is brought greater skill than that which has to be shown by the ordinary logger in his efforts to remove the timber from steep hillsides and inaccessible locations to the mills at a minimum cost.

The term "logging engineer" is used in its broadest sense, for while the majority of the men who are able to successfully overcome Nature's obstacles, have not had conferred upon them any college degrees and in fact in many instances have been deprived of even the barest amount of education, have nevertheless under the necessities of the business and with their own fertile and resourceful brains, been able to perform feats of engineering which for skill and daring have never been equalled in any field of work.

To these men who have been able successfully to meet these conditions without the preparatory training along mechanical lines, it is proposed to supplement through the aid of the universities and colleges, a special training to fit young men who desire to graduate as logging engineers. This education must be from the stump up, not from the college down. It is pleasing to note that as a result of the Pacific Logging Congress the States of Montana, Idaho, Oregon and California are making some progress in this direction; while the great State of Washington, through its university, has taken very active steps in formulating a policy which must result in fitting a large number of young men for work in the woods.

In British Columbia, a new university is to be established and there is every reason to believe that this province will endow a chair of logging engineering as a part of its curriculum.

The Pacific Logging Congress seeks to aid in every way possible the development of this idea, and in the language of the politician, "points with pride" to the growth of the sentiment along this line; a recognition of the place that logging engineering legitimately occupies in the great lumber industry of the West; and of the influence of the Logging Congress as a factor in forcing this recognition.

The Tilting Dump

By James O'Hearne*

At the first Logging Congress held at Seattle in 1909, dumps of all kinds were so thoroughly discussed that we thought the subject had been settled for all time, but it seems that some of these subjects will not down.

The tilting dump is one of the many ways of unloading logs, having its advantages and disadvantages the same as other methods. No dump will suit all conditions; one giving the best satisfaction at our camp may not work at all at another; one that may be constructed at low cost in one camp may be almost impossible to build in another. So we will simply describe its construction and the work it has done for us, not entering in detail into the construction. Any camp using such dumps has blue prints of them which can be examined for the asking.

Details will differ in each dump, depending on the shore line and

* Address delivered before the recent Pacific Coast Logging Congress.

contour of location where built. We have used piles for foundation; it may be that in some places concrete could be used to advantage. Since putting ours in, ten years ago, we have entirely rebuilt it, strengthening many places that we found weak; and for the roller timber, or axis, to work on, we have put a set of heavy cast iron chairs on the sills and cast iron cylinders on the roller. This gives the dump a much freer motion than under the first arrangement when we lined wooden bearings with leather. The roller timber—a stick 42 feet long by 20 inches square—two stringers, and a floor of ties and latch timbers above them, make the platform of the dump upon which the track is laid. The latch timbers—five on each dump—extend about two feet beyond the ties on the land side and are fastened down by iron latches that hold the dump stationary while the train is crossing. The center latch timber, known as the trip timber, is longer and larger than the others; being 36 feet long, 9 inches thick, and 18 inches wide at one end, tapering to 12 inches at the other.

The dump is built in pairs, each 40 feet long with 30 feet of stationary track between. This arrangement allows logs of any length to be dumped. Two cars containing logs up to 40 feet can be spotted at once and dumped. To dump longer logs, one truck is spotted on each dump and the dumps tripped simultaneously.

The operation is simple, the cars being spotted, chains taken down, and latches knocked off. The center of the track is placed about 3 inches to the water side of the center of the roller timber, so that upon the removal of the latches, the weight of the car causes the platform to revolve 15 degrees on its axis, and the logs roll off. The dump is then brought back to position by the men walking out on the trip timber. Loads heavy on the land side will not trip the dump. Such loads are started by prying up on the trip timber. Slabs will not always roll off at this inclination, and to take care of these, we have a gin pole and throw them off by a pull from the locomotive. With three men working, the average time used is about 2½ minutes per load—a good part of this being used in taking down and putting up the binding chains.

Running water outside the dump facilitates the work by keeping the logs out of the way, though during slack tide, we have had no great trouble; the disturbance of the water caused by the logs falling in being sufficient to keep the dumped logs out of the way. Low water is a more serious drawback. If the logs do not float away, there is more or less breakage of cedar when the logs are thrown in on the pile that forms. For this reason, this would not be a satisfactory form of dump for camps that unload logs on the tide flats, often having not enough water to float logs.

The cost of the dump will vary with different locations, and the nature of the ground built upon. We encountered some quicksand and on that account put more piles in the foundation than was originally planned. The double dump complete can be built for a little more than $2,000 in any ordinary show. This does not allow anything for the timber used. We get out our own piles and hew the timbers, charging the dump for the labor but not the timber. The maintenance for the past seven years has been about $300 per year. During that time we have rebuilt the dump complete, the cost of rebuilding, naturally being less than the cost of first building—some of the piles and timbers and most of the iron being used in the second construction.

The dump has met our requirements well. Accidents to those working on it have been few. It is not hard on trucks or other equipment, and has taken care of any output we have had. We are now dumping about 350 thousand per day and could take care of much more.

Rough Ground Logging

By Fred R. Olin*

Our overhead system for rough ground logging, like almost all other methods in logging operations, is just a modification of other systems, with the addition of our own ideas to conform to needs and difficulties to be overcome of the special tract of timber to be logged. It is a well established fact that it is almost impossible to log any two pieces of timber with exactly the same methods—every tract of land, in fact every log, presents new problems.

The first attempt made at an overhead system was not just the success we had hoped it would be, principally owing to the length of our standing line, which was 2600 feet. We used 1¼ inch plow steel rope, but found it was not strong enough to do the work, and I doubt very much if a heavier line would have helped much, as the weight of this amount of line which hung free from the top of the hill to the bottom, together with the constant vibration, would break almost any line after a short time. We did manage, however, to keep it working for about a month, but the logs were small, averaging about 600 feet.

Before going any farther, I possibly would make myself better understood by going more into details as to the way in which we had our lines set out, etc., and what we were trying to overcome.

We had a small patch of timber about 2,600 feet straight up the hill from our railroad track. The slope was on an angle averaging about 30 degrees, steeper in some places and not so steep in others, making it expensive to build and operate a pole road, and out of the question to work an ordinary dirt road, or rather no road at all. We decided then to try an overhead cable, with a three-sheave trolley block to carry the logs down. This overhead cable was stationary, being fastened to the top of a high stump at the top of the hill, and to the bottom of a large stump at the foot of the hill along the side of the railroad. We then used a main line and trip line, but fastened to the trolley instead of the log, to bring in the logs and to take the empty trolley back to the top of the hill.

This overhead system we used just as a roading operation, having an engine at the top of the hill to yard the logs to a point just under the overhead cable. The logs were then hooked onto the trolley, and taken to the bottom of the hill where they were squared around and loaded on cars. This worked all right as long as we could keep the overhead, or standing line, up, but was rather slow even then as our lowering engine was of the ordinary type and had an excess of power and lack of speed. An engine for this purpose should be built for speed and not power, or, better yet, have three drums—two for speed, and one for power, the latter to be used in tightening up the standing line. It also should have extra braking power for snubbing the logs down the hill. At some points on the hill the logs would touch the ground, and drag. The main line would then come into play, and haul them over this place. The main line was also necessary in starting the logs down the hill, and in pulling them to their proper place after they had reached the foot of the hill.

From the results obtained at this operation, however, we came to the conclusion that 2,600 feet was too far for one span, and that 1¾ inch line was not heavy enough for the overload cable. We also found that too much time was lost in sending the empty trolley back for the next load.

Our next attempt, and which we worked with a much greater degree of success, was at our Camp Three on the Breitenbush River. Here the setting was somewhat similar to the one just described. After logging off the face of the hill with a yarding engine and the ordinary methods, we had left a large flat top of the hill too far to reach with the yarder, at the foot of the hill. We then moved the yarding engine to the top, and to get the logs from the yarding engine to the foot of the hill to the road engine, which already had its full distance to go, was where we used the overload system.

Our distance at this place, however, was only 1,800 feet, and we used 1½-inch plow steel for the standing lines. Here, in order to avoid the loss of time in sending the empty trolley back up the hill, we put up two standing lines with a trolley on each one. These two blocks were fastened together with a piece of 11-inch line, 1800 feet long, running through a system of blocks at the top of the hill so that when one block was at the top ready for a load, the other block was at the bottom of the hill with its load ready to be unhooked and sent back. In this way one block was always coming down with a load when the other was going back. The two standing lines were about thirty feet apart at the top of the hill, so as to avoid confliction in the lines, and at the bottom were just the width of the pole apart, so as to bring the logs to one point to be taken on in by the road line.

We used three-fourth line on both upper and lower drums of the lowering engine, as both drums had exactly the same work to do.

In this lowering operation we employed five men—one man at the top of the hill to hook on; one at the bottom to unhook; an engineer, a wood-bucker and a fireman.

The most we ever brought down in one day was about 100,000 feet, but this was not the full capacity of the overhead system, as we were, of course, limited to the capacity of the yarding engine.

I think if the logs were at hand at the top of the hill that this arrangement would be capable of bringing down 150,000 feet per day, and possibly more with an engine built for that purpose.

* Address delivered before the recent Pacific Coast Logging Congress.

Imports of timber into Australia for the first six months of 1912 were valued at £1,286,590. During the corresponding period of 1911, the value was £1,417,196. The exports of timber during the first six months of 1912, were valued at £403,945. During the corresponding period of 1911, the value was £452,712.

The Yellow Poplar Lumber Company of Coal Grove, Ohio, adwood in addition to poplar. They are making a specialty of quartered white oak, having a splendid source of supply of virgin white oak timber.

The Smart Turner Machine Co., Ltd., Hamilton, Ont., have received an order from the New Brunswick Pulp & Paper Co., Millerton, N.B., for one of their Duplex pumps.

WANTED & FOR SALE DEPARTMENT

PUBLISHERS' NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

WANTED—LUMBER, ETC.

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

Lumber Wanted

Several cars of good 1-inch No. 3 Common Hardwood, Birch preferred. State quantity, average width, and best price. Box 578, Canada Lumberman, Toronto, Ont. 18-21-5

Slabs and Cord Wood Wanted

Am open to buy any quantity up to 10,000 cords hard and soft wood slabs and cordwood. Write me. Horace Hartley, 19 ayor Street, Montreal. 15-19

Lumber Wanted

White Pine and Basswood Slabs wanted; from this season's cut; must be bright and of good thickness. Write stating how many cords you have, what you want for it on cars your station, and how much is ready to ship now. The Wm. Cane & Sons Co., Ltd., Newmarket, Ont., Canada. 17-19

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4½ in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

FOR SALE—LUMBER, ETC.

For Sale

For quick shipment, 100 M. ft. 2-in. Birch, December, 1911, cut. No. 2 C. & B. at $20 per M. on cars. Farm Point, Que. Hall Bros., 174 Mutual Street, Toronto, Ont. 16t.f.

Cedar Shingles

Four carloads XX 16-in. Cedar Shingles, retailing at $1.75 per M. Price in car lots $1.15 at mill, C. P. R. or G. T. R. Lindsay, Ont., for quick sale. Terms 30 days net. Box 279, Lindsay, Ont. 19-22-24

For Sale

Fifty M. ft. 2¼-in. and 50 M. ft. 3-in. clear maple flooring, kiln dried, end matched, hollow backed, bored and bundled, at reduced prices. Can make prompt shipment. The Woodstock Lumber & Manufacturing Co., Ltd., Woodstock, Ont. 19-13

For Sale

For quick shipment, 800,000 ft. Birch. All grades and thicknesses.

200,000 ft. Soft Elm M. R. All thicknesses.

100,000 ft. Basswood M. R. inch.

100,000 ft. Maple. All grades and thicknesses.

Send us enquiries. The Meaford Lumber Company. 7-20

Lumber For Sale

4 cars 1-in. good cedar for boat building.
100,000 ft. 2 x 6 mill run hemlock.
100,000 ft. 2 x 8 mill run hemlock.
4 cars 2-in. white oak, sound and square edge. Apply to Geo. C. Goodfellow.
C Montreal, Que.

For Quick Sale

700 Acres Virgin Timber, Hardwoods, Hemlock. Estimate Five Million Feet. Owner must sell at once. Price, Four Thousand, half cash, balance two years, or $3,500 spot cash. This is a snap. Easy to take out. Contractor has offered to take off and put in lumber at track for about $11 per M. feet. Apply Box 598, Canada Lumberman, Toronto, Ont. 19-22-20

WANTED—MACHINERY, ETC.

Tramway Steel Wanted

Car load of 12-lb. Tramway Steel. Write particulars and best price. Mutchenbacker Bros., Mafeking, Man. 19-20-15

FOR SALE—MACHINERY, ETC.

For Sale

Large three band sawmill complete, blacksmith shop, docks and trams, located at Ford River, Mich. Will sell at a bargain. Address I. Stephenson Co., Trustees, Wells, Mich. 17-19

For Sale

Live sash and door factory with large and increasing general business in wide-awake British Columbia City employing 22 to 25 hands. Price $30,000. Will bear closest investigation. For complete information, write

L. D. McLEAN,
1015 North Park Street,
19-14 Victoria, B.C.

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 70 H. P. boiler, 60 H.P. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water.

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

For Sale

Established Lumber Business on main line Northern Division G. T. R., up-to-date circular mill, steam feed, edger, trimmer, etc. Capacity 20 to 25 M. per day. About 650 acres well timbered with Hemlock, Birch, Maple, etc., etc. Good roads all through bush. Down grade to mill. Private siding at mill. Box 587, Canada Lumberman, Toronto, Ont. 19-20-11

Bargain in New Chain

12,000 lbs. 7-16-inch log chain, galv., 30 ft. lengths.
10,000 lbs. ⅜-inch log chain, self-colored, 14-ft. lengths.
8,000 lbs. 7-16-inch log chain, self-colored, 30-ft. lengths.
1,200 lbs. ⅜-inch log chain, self-colored, 10-ft. lengths.
600 lbs. ⅜-inch log chain, self-colored, 12-ft. lengths.
500 lbs. ¼-inch twist chain.
4,500 lbs. ⅜-inch proof chain.
600 lbs. ⅜-inch B. B. B. chain.
10,000 lbs. 7-16-inch proof chain.
450 lbs. 3-16-inch long link chain.
600 lbs. 3-16-inch extra long link chain.
300 lbs. ⅜-inch extra long link chain.
All log chain with grab hook and ring. Prices on application. Address

HENRY A. HITNER'S SONS CO.,
19-12 Philadelphia, Pa.

WANTED—EMPLOYMENT

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

Wanted position as band saw filer to finish this season cut with the consideration of work next season. Can show first-class references. Reply to A. E. Cartmill, Fesserton, Ont. 19-21

Wanted position as Superintendent or Manager with a live lumber company; have had 14 years' experience and can get results. Best of references as to ability, etc. Box 572, Canada Lumberman, Toronto, Ont. 19-23

WANTED—Position as travelling salesman for wholesale lumber firm on salary or commission. Several years' experience in lumber business. Would accept position as office manager or head bookkeeper. First class references. Address Box 599, Canada Lumberman, Toronto, Ont. 19-29

WANTED—Position by young man as sawmill office manager or shipper. Ten years' experience with largest hemlock concern in East. References A.1. Address Box 560, Canada Lumberman & Woodworker, Toronto, Ont. 17-20

WANTED—Position as manager by man of experience both in the manufacture and selling end of hard and soft wood lumber in Canada and the United States. Am interested and employed as manager with company operating two mills, with whom I have been three years. Would invest some capital if mutually satisfactory. Am 38 years of age and can refer to present employers. Address Box 601, Canada Lumberman, Toronto, Ont. 19

WANTED—EMPLOYEES

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

Lumber traveller wanted. Must have good connection with Ontario trade. C. A. Larkin Lumber Company, Limited, 240 Confederation Life Building, Toronto, Ont. 19-22

WANTED—An experienced salesman and shipper. One who can grade Birch. References required. Apply Box 591, Canada Lumberman, Toronto, Ont. 19-19

WANTED—Salesman with some knowledge of measuring and inspecting lumber, age from twenty-five to thirty-five years. Apply Box 568, Canada Lumberman, Toronto, Ont. 18-21-2

Wanted

A first-class man to take charge of a well equipped Planing Mill, and Sash and Door Factory. Only a man capable of estimating and drafting need apply. References will be required. First-class salary to right man. Reply to Box 497, Renfrew, Ont. 17-19

BUSINESS OPPORTUNITIES

For Sale

Timber limit, comprising 18 sq. miles, containing 25,000,000 feet mixed timber. Apply Geo. S. Nesbitt, Rupert, Que. 16-19

For Sale

Established Lumber Business, with first-class mill, now running full time. Timber limits with 20 to 30 million feet of standing pine timber conveniently located, and all merchandise, etc. Price $55,000. This is worthy of investigation. Address Box 332, Canada Lumberman, Toronto, Ont. 19-22-t.f.

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest, if your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf.

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 115 h.p. boiler, 100 h.p. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water.

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

WANTED—To hear from Box Mills in position to furnish boxes in car loads. Apply to Geo. B. Breon, Williamsport, Pa. 17-20

Advertiser wants to purchase small timber limit having at least ten million, sawmill, etc., or will consider half interest. Answer Box 573, Canada Lumberman, Toronto, Ont. F

FOR SALE—A farm, sawmill and timbered lands, also a quantity of choice clear soft pine plank sidings. Apply to Hugh Cameron, Canonto P. O., Ont. F

For Sale — Sawmill with Capacity

Of one hundred thousand feet per day. Located in Everett, Wash. Good rail and water shipping facilities. Ten and one-half acres of land with excellent mill pond. Price less than one-third of appraised valuation. F

Address, P. GARDINER, Everett, Wash.

Baughman's Buyer and Seller

The twelfth edition of the handy book for lumbermen just out. Revised, improved; see the new side tables, the metric system, tapering timber, to figure narrow flooring, moulding and box work, etc., five sections each indexed and separate work. Every page worth the price of the book. The book that talks to lumbermen. Not millions but more than seventy-five thousand copies have been sold to lumbermen. Bound in red flexible leather cover, $2.50 per copy prepaid. Orders mailed day received. Address H. R. A. Baughman, Indianaoplis, Ind. 19-22-18

PARTNERS WANTED

The advertiser has just built and equipped the best plant in Canada for the manufacture of doors and boxes, and wants one or two good men with capital to join him, one to take the financial end and office work, and the other a man with a good knowledge of the manufacturing end of the business. The trade in boxes will be local, but doors will be shipped to all prats of Canada as well as to England. There is not a large specialized door factory like this one in Canada to-day. The demand for doors is increasing rapidly, and car loads are daily being brought form the States which can be filled by a good Canadian plant. All correspondence will be treated confidentially. Address Box 600, Canada Lumberman & Woodworker, Toronto, Ont. 19-21-25

Important Sale of Valuable Timber Limits

Sealed tenders will be received by the undersigned up to and including the **20th day of December, 1912**, for the purchase of:

Limit No. 194 of 1873-74—River Jean de Terre—tributary to the Gatineau, containing an area of fifty (50) square miles, more or less.

Limit No. 195 of 1873-74—River Jean de Terre—tributary to the Gatineau—Island Lake, containing an area of fifty (50) square miles, more or less.

These limits comprise some of the best pine and pulpwood areas in the Province of Quebec.

Map showing location of these timber limits and report thereon may be inspected at the offices of the undersigned and from whom further information may be obtained.

The highest or any tender not necessarily accepted, and the acceptance of any tender will be subject to the approval of the Court.

The Toronto General Trusts Corporation,
30 Slgin Street, Ottawa, Ont.
or
Messrs. Aylen & Duclos, Barristers,
Castle Building, Ottawa, Ont.
or
Messrs. Belcourt & Ritchie, Barristers,
Castle Building, Ottawa, Ont.

Dated Ottawa, August 5th, 1912. 16-20

Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

A Complete Little Planer, Matcher and Moulder

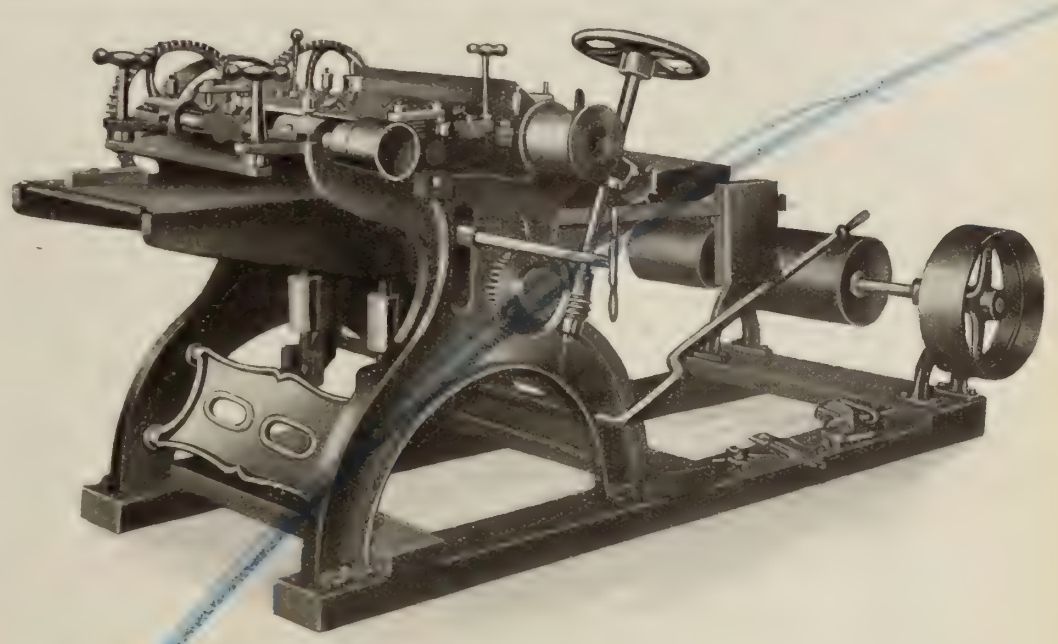
The Little Giant planer, matcher and moulder which is illustrated herewith is manufactured by the Josiah Ross Manufacturing Company, 1443-1459 Niagara street, Buffalo, N.Y. The company are now making this excellent machine with a moulding attachment, mounting the machine upon a wooden frame so that it can be moved from place to place, and making it one of the most complete little machines on the market.

This machine will plane stock 18 in. wide and 5½ in. thick. It will plane and match from one-half inch up to two inches on soft wood and from one-half inch up to one and a half inches on hardwood. It will match stock from 2 in. to 8½ in. in width. The surfacing capacity is from 8,000 to 10,000 feet of plain surfacing per day. The machine will match from 3,000 to 4,000 feet of 6-in. strips per day. In order to change from matching to surfacing it is only necessary to remove the matcher heads as the tops of the spindles are below the bed.

All the boxes on the cylinder after being babbitted are bored out to an exact size and the bearings are turned to an exact fit. The machine is ready to belt and go, and will do first class work right from the start.

The company also apply to this machine their Patent Adjusting Feed Device which regulates the feed so that the operator does not need to look after the machine, once he has entered the board. If the cut is too heavy it will simply reduce the feed until it can carry it through.

Only one driving pulley is used on the countershaft to drive both cutterhead and moulder-head. The machine is furnished with plain knives for the cylinder, one pair of matcher heads with knives, a set of wrenches and also a "jack" for setting the matcher knives in the heads. One pair of beading tools and one pair of novelty siding knives, or in place of them one pair of 3-in. moulding knives, are also supplied. The machine weighs 1,600 pounds, and is operated with five horse power.



The Little Giant Planer, Matcher and Moulder, Josiah Ross Manufacturing Co.

An Interesting Band Cut-Off Saw

A machine which is of much interest to lumbermen and pulp wood manufacturers is illustrated in the accompanying cut which shows the "Bryant" Patent Band Cut-Off Saw manufactured by Butterworth & Lowe of Grand Rapids, Mich. This machine is designed for cutting of logs, timbers, etc., to any length required. It is useful in making stock for staves or heading, veneer or basket work, pails and tubs, wood pulp, shingles, lath, pickets, bed slats, cord wood, or in fact any cross cutting of logs or timber that has heretofore been done by circular or drag saw machines.

These machines have been in general use for several years and have given splendid satisfaction. They are no experiment. Messrs. Butterworth & Lowe, owners of the patent, have made a number of improvements in the general construction and details of the machine since it was first put before public. It is in fact a thoroughly first class and practical device for its particular work.

A number of attractive features might be mentioned in referring to this machine. One of the most interesting is that the saw is maintained at a uniform tension by an adjustable coil spring. An adjustment is also provided to control the position of the saw on the wheels. The guide rollers, between which the saw runs, causing the quarter twist, are of chilled iron (set staggered), their yoke boxes being adjustable, thus insuring square cutting by the saw. The hardened steel back pressure rolls (which are adjustable) keep the saw teeth clear of the guide rollers as the width of the saw decreases by wear.

The operator raises the entire saw frame with saw to the height required, by pulling down on the rope having the balance weight attached, or by means of the endless rope at out end of the machine as shown. As the saw runs at 3,300 ft. per minute, the cutting is smoothly and quickly done. The power required and the loss in sawdust are very small. The machine requires only 3 horse power for the 24-in. size and 7 horse power for the 48-in. size. A 4-in. belt drives the 18-in. pulley on the 36-in. machine.

Some of the most important features in connection with the machine are that it requires no foundation or strong fastening; that the log needs no dogging or holding while being cut; that it has positive adjustments at all points; that it is perfectly balanced and easily handled without friction or other mechanical hoisting. For wood pulp work it is particularly adapted, leaving the sawed ends clean and smooth as the fine teeth travel rapidly in straight and parallel lines in one direction only.

This is a machine which it would be a distinctive advantage to Canadian lumbermen and pulp wood manufacturers to take up. It

The "Bryant" Patent Band Cut-Off Saw

has already been in general use in the United States as well as in Europe, England, Scotland, China, and Australia for upwards of 10 years, giving excellent satisfaction. An idea of its popularity may be gathered from the fact that the manufacturers recently shipped the 8th machine to Ashland, Kentucky, the previous seven orders having resulted from the first satisfied customer, without any solicitation. They also recently received a 4th order from Brewton, Ala., in a similar manner. Quite a number of second orders are continually being received from first class concerns.

It should require no argument to prove to a mill man or a wood worker that a thin band saw travelling at a high rate of speed and in one direction only will cut more rapidly than a heavy dray or circular saw and will require much less power, at the same time doing better work.

A letter to Messrs. Butterworth & Lowe, Grand Rapids, Mich., will bring full information regarding this interesting machine. Readers of the Canada Lumberman who are interested should write the firm and at the same time mention that they saw their advertisement which appears on another page in the Canada Lumberman.

A Remarkable Machinery Catalogue

The Clyde Iron Works, Duluth, Minn., have issued a catalogue of their hoisting machinery which is certain to win admiration and attract the attention of everybody into whose hands it comes. The catalogue is one of the most complete that the Canada Lumberman has ever been fortunate enough to receive. Practically no effort and no expense can have been spared in the preparation of this remarkable book. It is printed upon excellent calendared paper which brings out the illustrations in a splendid manner.

The book is filled with information of the most interesting character about the Clyde Iron Works' great variety of hoisting engines, both steam and electric. In addition to the illustrations and general information regarding the construction and nature of the machines, the catalogue contains a vast amount of valuable general information which makes it in reality a modern text book upon hoisting engineering.

Nothing need be said here about the excellence of the Clyde Iron Works machines. They are well known to the lumbering industry. It may be said however, that those who are acquainted with their machines in their own individual operations will be surprised, after perusing this catalogue, to find out what a variety of products the company manufactures. The catalogue itself is produced in a manner typical of everything else which this company does. It is complete and of the highest possible type of perfection. The company advise us that a solid car load of these catalogues has been ordered and will shortly be distributed throughout the length and breadth of the hoisting-machinery-using world. The catalogue is bound in cloth in a very substantial manner.

A Successful Exhibit of Saws

The A. J. Burton Saw Co., Ltd., of 374 Sparks street, Ottawa, Ont., had a good exhibit this year in the Dominion Exhibition at Ottawa. Saws large and small, circular saws, both solid and inserted-tooth, from one foot to five feet in diameter, and band saws from ¼-in. to 12-in. wide, single and double cut, shingle, jointer, and every other kind used in sawmills, were displayed. Their booth was unique in design, 18 ft. high, finished in oak. A large sign above declares it to be "Ottawa's Saw House." It was covered with saws of every variety. Of special interest were two large double-cutting band saws, and some smaller bands, forming perfect loops, with a large Patent IXL inserted-tooth saw in the center of the booth. The booth was beautifully trimmed with electric lights, the effect of which attracted much attention. The company were awarded a diploma for their sawmill saws. Mr. A. J. Burton himself superintended the exhibit.

A Remarkable Roofing Contract

A good indication of the popularity and utility of the H. W. Johns-Manville Company's roofing products is afforded by the fact that they have recently completed a remarkable contract for the Memphis Union Stock Yards at Memphis, Tennessee. These yards are generally considered to be the most modern and up-to-date stock yards in the world. They comprise auction and commission stables with a capacity of 2,000 horses and mules. A private mule barn with a capacity of over 8,000 head and an auction pavilion arranged for the selling of from 500 to 1,000 animals during the week.

One of the important features which had to be arranged for in the construction of these stock yards, was the covering of some 400,000 square feet of the buildings with a durable fireproof roof. The buildings are located alongside of a railway and the fire risk was so great that shingles or inflammable roofing could not be used. On account of the great amount of space to be covered, an unduly expensive roof or one that required painting, gravelling or frequent repairs was considered out of the question. After a thorough investigation, the J.-M. Asbestos roofing made by the H. W. Johns-Manville Co., New York, was selected for all the buildings.

This roofing is made of pure, long-fibred asbestos (stone) felt, securely cemented together with a combination of Trinidad Lake and other natural asphalts—two indestructible minerals. Approximately 400,000 square feet were necessary, or about ten acres.

Loading Logs by Overhead Rig

By O. J. Evensen*

Loading logs and keeping the yarding engine clear at the landing has been a great study for all loggers. There are a great many ways to load logs on cars, and the varying conditions and the lay of the ground that we have to contend with make it a very difficult proposition in some cases to find a suitable place for landing or rollway to load logs on the cars.

In some cases your railroad may be along the side of a hill and no possible chance to build a rollway or even have a landing place. We have eliminated all this trouble by using a special three drum four-cylinder loader as built by Smith & Watson, which will load from a yarder, delivering logs within 100 to 400 feet of the railroad and add at least 30 per cent. to the capacity of yarder.

This system of loading being an overhead rig, the device is very simple and is of special advantage by reason of its being quickly removed from one setting to another.

The device consists of two well guyed trees or gin poles, one on each side of track. The trees or gin poles can be anywhere from 200 to 800 feet apart to suit the conditions and allowing the receiving of logs on both sides of track with one setting of the device. A 1⅜ inch cable is stretched tight from one tree to another about 40 or 60 feet up from the ground. There is a special carriage that rides this line, which can be racked in either direction at a speed of 800 feet per minute, the two upper drums of this loader doing the racking. The lower drum is for the main line or lifting line, which is fastened as a tall hold to one of the trees used for the tight line and then passing through the two lower sheaves in the carriage, looping down to another special block in the bite of this line, which gives the engine a block purchase on the log. A chain bridle with large special hooks are fastened to this block.

This lifting line is handled entirely independent of the racking lines so that a log can be picked up or lowered while the trolley is being racked across on the tight line. We can pick up any size log and hold it with this machine, while the trolley is being racked .

One of the great advantages of this system of loading is that we are never blocked up at the landing and we can always pick up the log we want in order to make up a car load. This being an advantage over loading from a rollway or landing place, as it is always necessary to take the front log to load when loading from a rollway and in a good many cases this log is not the right size or length needed to make up the train load. Also if anything happens to the train the yarder can keep bringing in the logs, we have had as high as 200 M on a rollway in a case like this.

This system is always advantageous by reason of the size and length of timber it is capable of handling. We handle logs of a maximum length of 160 feet. The capacity of this system is varied only by the capacity of the yarder and we think this system will take care of all the logs two yarders can haul in under the tight line, and not delay the yarding engines in any way. Although we plan to reach out as far as it can and clear one yarder, in this way the yarder has a reach of 1,200 feet from railroad with only 800 feet haul.

By eliminating building all of our rollways and landings, this system of loading has proven to be the most inexpensive way we have found to load our cars, and the capacity of this new loader is probably 50 per cent. more than any other type now used.

Another special feature of this system is that we can always get a better setting for our yarding engines, placing a yarder say 300 feet away from railroad gives a much greater percentage of yarding on a straight pull.

This device with perhaps some improvements, some time in the future will be valuable for logging closer than we do now, for instance after a donkey has taken off what is profitable to log with steam, a second operation, before the railroads are taken up could be done with horses. For this the tight line could be extended 1,000 feet, and it would be very easy to clean up the ground this way, taking extra stumpage off at from 8 to 10 M feet per acre. Leaving the cut-over land in better shape for its future development as well as almost eliminating the present fire risk. However, this is far fetched, as this lumber would be all common and poorer, which at present price cannot be logged only at a loss and our law makers evidently think it is better to leave this on the ground and let it burn, even if in so doing it burns a few billions of standing timber occasionally, rather than protect this valuable and fast diminishing asset.

*Address delivered before the recent Pacific Coast Logging Congress.

TANK and SILO STOCK

British Columbia Fir is the finest Timber grown for Tanks of all descriptions and for Silos, as well as any other purpose where strength and durability are required.

A TRIAL SHIPMENT WILL CONVINCE YOU

CANADIAN WESTERN LUMBER CO. LIMITED
F
FRASER MILLS. B.C.

Capacity 750,000 ft. Daily

Construction Timber, Car Material, Interior Finish, Cross Arms, Edge Grain Flooring, etc.

Mail or Wire your Inquiries to nearest Branch Sales Office—

TORONTO	68 King Street East	Hugh A. Rose, Representative
WINNIPEG	Farmers Building	H. W. Dickey, "
SASKATCHEWAN	Travelling Representative	H. Paterson
ALBERTA	" "	A. Montgomery

Review of Current Trade Conditions

Ontario

The Ontario demand for B. C. shingles is still very brisk and an advance of ten cents has taken place. There has been an almost unprecedented use of shingles in the prairie provinces and consequently many of the mills are oversold and are refusing orders. The delivery question is becoming more serious every week on account of the shortage of cars for transportation, although this might be considerably relieved if there were more engines to move the cars. A prominent Toronto lumberman, just returned from a long trip, stated that empty cars were left standing on the rails sometimes for days because there were no engines to move them. The railways are taking steps to improve matters by sending out circulars asking their customers to unload cars sent them as speedily as possible. All the conditions indicate that the advanced price of B. C. shingles is likely to be maintained, and there is also a general advance in United States prices.

Hemlock stocks are very short and great difficulty is experienced in meeting the heavy demand. By the fall, very little dry stock will be on hand, and by the spring, prices will probably be considerably advanced. Some dealers who have been out of the hemlock trade for some time, are again handling it as they find that being able to offer hemlock, helps them considerably in disposing of their other lumber.

White pine sales have been very good during the last few weeks, but red pine and spruce are very scarce.

In hardwoods, there is not much offering from the mills at present, although stocks are moving freely where cars can be procured. Movements of export brick for Liverpool and London are rather slow, stocks which are usually moved in July and August being still in the yards. There is an increase in the United States demand, particularly for heavy birch, those requiring stocks being willing to pay from $2 to $3 a thousand more than last year, and there is no falling off in the shipment of stocks to United States consumers. Desirable stocks in basswood are scarce. Brown ash and elm are in good demand, both in 4/4 and thicker sizes. The demand for birch has run very heavily in Canada from one inch up to 8/4, and even mill culls in both birch and maple have been pretty thoroughly bought up. Prospects are good for the fall trade both in Canada and the Eastern States and apparently the Presidential election is not having the usual depressing effect on trade in the States.

Manufacturers of fine furniture report that they are overcrowded with orders at present and cannot get desirable stocks for immediate use. They have lately been ordering from hand to mouth and have consumed any surplus stock which they had accumulated. At the same time, the mills have no surplus stock to offer them. The result will probably be a stiffening of hardwood prices all along the line.

Exceptionally active business is reported from the Tonawandas, with remarkable price advances in several cases. White pine is moving rapidly and Norway is in splendid demand. Hemlock would be very active, if there were any stocks to speak of. Hemlock however, is almost off the market in all the important sizes. Shingles have followed the lead of laths which rose rapidly during the earlier part of September. Red cedar shingles reached $3.90 during the 3rd week of September. White cedars were close behind them. Lath are steady and firm at $4.10. Canadian hardwoods are steady and stocks are scarce.

Eastern Canada

Reports from New Brunswick are uniformly of an encouraging nature. The advance of the season is accompanied by higher prices for all wood goods. Spruce deals for the English market are practically all sold, and prices have come close to those of last year, being $15 for a specification of 50 per cent. 9 in. and up, balance 7 in. and 8 x 3. Scantlings brought $13 for 3 in. x 4 and 5 in. with $13.50 for the balance. Ends sold at $11 and fourth quality deals brought $13. These prices are all on the sellers' wharves. Indications are all very promising for a continuance of good prices for next year, both in England and the United States. Freight rates are still excessive to Great Britain, charters having recently been made for vessels at 65 shillings to Manchester from Bay of Fundy ports. To United States ports, freight rates are firm at about $4 to New York and $3.50 to $3.75 to Sound ports. New York prices for 2, 3 and 4 in. are unchanged at about $24.50. Shingles are scarce in New Brunswick and B. C. red cedars are selling at about 10c. above the price of New Brunswick cedars. There is a good demand for box shooks, and all the mills are sold ahead at prices about 10 per cent. higher than last year. Laths are in good demand and scarce. In New York, they are bringing about $3.85 delivered.

A steady demand continues for spruce lumber at Boston, although some dealers expected trade to be more active than it is. The past summer has been one of the best the retailers ever experienced. Most prices are firm. The asking price for frames is $24.50 to $25, but few buyers will offer the top price. Manufacturers expect the $25 basis to become fixed early in October. There is a fair demand for random at Boston, prices ranging from $22 to $22.50 for 2 x 4. Offerings of dry spruce covering boards are light and prices are firm. Hardwood prices are steady and the volume of trade is fair. Plain oak is generally quoted at $58 to $60. The offerings of good stocks are only moderate.

At New York, the demand for eastern spruce is fair and prices of all grades are steady. Yard stocks are not large. There is a strong demand for hardwood at New York, and prices are strong. Low grades are moving steadily. Plain and quartered oak are firm. The demand for hemlock at New York is strong and stocks are scarce.

Great Britain

The timber trade at London continues active. The requirements of the trade in packing boxes are large, but strong competition keeps the prices down. In other lines the timber trade is good with a fairly promising outlook. Deliveries at London docks for the week ending September 7th, amounted to 5927 standards as compared with 5716 standards during the corresponding week of 1911. At Churchill & Sims' recent auction sale, a parcel of first Quebec dry pine, 3 x 11—10 was sold at £37 10s. Some prime dry Quebec birch 4 x 6/19—9/16 brought 1s. 3½d. per cubic foot.

A decidedly better feeling is reported in the timber trade at Liverpool. The other important trades of the district are reported to be in sound condition and further improvement is expected in the timber trade.

The effect of the high freight rates is most noticeable in connection with spruce. Buyers who expected to get in at lower prices than those which have recently prevailed seem likely to be disappointed. Recent transactions in spruce deals both in cargo and part cargo lots have been at full prices, to cover the high freight rates and insurance. Arrivals are going direct into consumption to fulfil contracts made some months ago. Importers however, do not show much disposition to continue trade at present prices. The pine deal market continues unchanged, and shows little likelihood of improving sufficiently to cover the high prices required by importers to bring out their cost. Importers consider that the producers at Ottawa are taking an autocratic stand. The trade in birch logs and planks is dull, importers apparently waiting for exporters to meet their views of the market situation.

At Manchester, the trade has been shown an easier tendency of late. Spruce, however, is stiffer, especially for anything long. Stock a foot or two over the average brings 15 shillings per standard extra. A fair amount of trade is reported from Glasgow. The ship-building industry is quite active and is consuming large quantities of timber. Recent arrivals have been light and practically all of the stocks from Quebec have been going into consumption. Spruce is scarce and there is a strong demand for the small lots which are arriving.

United States

Reports from various parts of the United States show that the lumber business continues in a strong position. Retailers of all kinds seem to have been buying extensively since the first of August. Minneapolis reports regarding northern pine are to the effect that it is increasing in strength as the season advances.

Chicago:—There is a fair and steady trade in white and Norway pine, and most of the operators are reported to be feeling confident on account of the favorable crop results. There is a heavy demand for the low grades especially those which are used for box manufacturing. The upper grades have also had a good season. All classes of white pine are scarce. The hardwood list continues strong and indications are that higher prices will rule in the near future. Most of the buying to-day is for immediate delivery, indicating that consumers' stocks are low. Mill stocks also are reported to be broken. Plain oak continues in good demand and firm. An improvement is reported in quarter-sawed white oak, first and seconds and common. White ash is firm and scarce. There is a fair demand for hickory. Birch and maple are active. Manufacturers of maple flooring are well supplied with orders. The demand for hemlock continues strong with prices firm and trade active. Yellow pine stocks are light and prices continue firm at the recent advances. Shingles are rather quiet but prices are firm at $3.77 for red cedar clears and $3.34 for stars, Chicago basis. White cedars are unchanged and in fair demand. Lath are moving steadily and are firm.

Buffalo:—The trade in white pine is fair, the principal activity

Raft containing 6,000,000 feet towed from the Georgian Bay to our Mills Arrived in Sarnia on August 5th

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being in pattern lumber and the low grades. Stocks are scarce. Indications are that the box trade will have to search hard to find lumber at a reasonable price for next season. Pattern lumber also promises to be scarce. A fair trade is in progress in hardwoods, at steady prices, with an indication of higher prices in some lines. Plain oak is the leader and stocks are low. There is a fair demand for brown ash, maple, birch and chestnut. The indications are that the hardwood trade will continue active in the near future. Hemlock dealers are having difficulty in securing stocks. The demand is active and prices are firm. The demand for southern pine is strong and prices are high. Shingles are firm in spite of frequent advances. Stocks have shown an increase of late, but dealers expect them to move off rapidly.

Market Correspondence

Upward Movement in New Brunswick Prices

St. John, N.B., Sept. 21st. (Special corrospondence of the Canada Lumberman): As the season advances, the prices of all wood goods seem to be tending upwards. Practically all spruce deals for the English market have been sold, either to Messrs. Mackay, McKean or Moore, who are the English buyers at this port. We understand that prices reached nearly to the mark of last year, sales being made at $15.00 for a specification of 50 per cent. 9 inch and up, balance 7 inch and 8 x 3, with scantling. $13.00 for 3 in. x 4—5, balance $13.50, ends about $11.00, fourth quality deals $13.00; all on the sellers wharves, which is the usual way deals are sold here. It is to be hoped that prices will be maintained through the winter months, and that the year 1913 will open with a small quantity of deals on hand throughout the province, thereby making the chances of future sales very much brighter. At the present time it looks very much as if this will be the case. Of course all depends upon the state of trade in England and the United States which at the present time is good.

Freight rates to British Isles still continue to advance and it is understood that charters have been made for vessels at 65 shillings to Manchester from Bay of Fundy ports. This is the highest in recent years and it is felt that as freight rates are abnormal they cannot long remain where they are, but must recede. Very little space is available on liners from this port at present, to London. The space will be limited for some time, as the apple crop from Nova Scotia will get most of it thereby limiting the deals.

Freights to United States ports still remain firm at about $4.00 per m. and $3.50 to $3.75 to New York and Sound ports respectively.

Prices for 2, 3 and 4-inch in New York remain about the same, viz., about $24.50 base price, sliding up or down according to percentages of widths and lengths. Long specifications in the United States market have not been bringing the price they should, compared with the price paid for shorter average length and width stocks. Those who have handled car business in shorter average lumber have had good prices all through the season compared with the price for long average stock which must come from a log costing about $16.50 at the mill, compared with logs costing $11.50 to $12.50 per m. ft.

The shingle business is still in a state of shortage and many outside shingles are being brought into local supply. In fact a good many red cedar shingles are being brought from British Columbia and sold at about 10 cents per m. less than New Brunswick cedars.

Box shooks are in very heavy demand and all mills on this section are sold ahead of the saws for some time to come. Prices are about 10 cents higher than in 1911.

Local business still continues good and will probably do so until winter sets in, as some large new buildings are being erected and to be erected, the latest being the J. A. Pugsley Co. garage. Prices for all refuse inch, two and three inch remains firm and local stocks are low especially in one and two inch.

Laths are in good demand but very few are for sale in this section, as they were sold ahead for the season. New York prices remain at $3.85 delivered.

It is said that Donald Fraser & Sons, Cobano, Quebec and Plaster Rock, N.B., have secured options on the Scott Lumber Company's plant and timber limits, and also the Oromocto Lumber Company's limit, situated largely on the Oromocto. Should the Messrs. Fraser purchase these properties it is said they will operate the Scott mill at Fredericton.

The Provincial Lumber Co., Ltd., has been incorporated at St. John with Geo. McKean of this city president, W. E. Golding, treasurer, and Geo. E. Deming of New York, secretary. The new company will handle in the United States, lumber shipped there by Geo. McKean, who also handles large quantities of European and South American stocks, in all about 80 million sup. ft. They will also handle the stock of the Kent Lumber Co., Gold River, N.S., whose output reaches about seven and one-half millions of spruce, pine and hemlock. The new company will also handle the output of the River Valley Lumber Co., Oromocto, N.B., about five million feet, spruce pine and hemlock. This will give the company about twenty-five million to handle per year.

It is understood that all deals for European markets held by manufacturers have been recently sold, Messrs. Randolph & Barker and Murray & Gregory selling to W. M. Mackay, Messrs. Warner & Co. to Geo. McKean, Chas. Miller—Miller, Moore & Co. & J. E. Moore, to J. E. Moore Ltd., in all about 60 million feet, the price being about $15.00 per m. s. ft.

Prices Soaring at the Tonawandas

The Tonawandas, N. Y., Sept. 23. (Special correspondence of the Canada Lumberman): September business continues to show the strength noted earlier in the month. Steady and in some instances remarkable advances in prices do not appear to affect orders. There is a brisk demand for Canadian white pine. Norway or red pine is also feeling the general exhilaration of the market. Hemlock is not quite so active but that is perhaps explained by the long continued absence of the latter stock in local market in lots of any consequence. Where it was lath that went soaring early in the month, it is now shingles that are sky-rocketing. Red cedar clears almost touched the $4 a thousand mark the last week. The actual figures at high tide last week were $3.90. White cedars are running the reds a close second. Lath are stationary at $4.10 for a few days, but there are signs that they have not reached the high mark. Canadian hardwoods are steady. The demand would probably be greater were more to be had. Prices hold to normal with a tendency to advance, to meet the general ascendency of the market.

The best grades of Canadian white pine are bringing as high as $100 a thousand. The poorest culls are being sold for $20. No. 1 barn, and common or better are bringing correspondingly high prices with a steady demand for all grades. White cedar shingles are quoted as low as $1.50 and as high as $4. There is little stock on hand on account of the buoyancy of the market and dealers have difficulty in keeping pace with orders on that account. First grade pine lath, 1½ in. by 4 feet, is being quoted as high as $4.15 to-day. No. 2 grade nearly as good but showing a few sappy spots are being quoted below $4 but the supply is limited. Canadian stock of course takes its chances with western stock at the Tonawandas, but there is little Canadian lumber, lath and shingles on hand and the local market looks good for stock from across the border for some time to come. The practical certainty of fair weather well into October helps the optimistic feeling so thoroughly permeating all lines of lumber trade at this point.

Building is brisk. The growth of the Tonawandas, Buffalo and the entire Niagara Frontier has no better evidence than the amount of building visible from car windows or from autos in trips through the country. Several factories are being built in the Tonawandas and others are being enlarged. Houses are springing up everywhere, it would seem, between Buffalo and the Tonawandas to keep pace with the erection of manufacturing plants in the same section. A 25 per cent. better fruit crop than last year has brought prosperity to the farmers of western New York and the effect on the lumber trade is already apparent in increasing orders from rural supply points.

James P. Mackenzie, of the J. P. Mackenzie Lumber Company, returned to-day from a business trip to Toronto.

Thomas Charlton, retired lumberman, whose activity was chiefly in Canadian territory, and his wife recently celebrated their golden wedding anniversary at their home in North Tonawanda.

The break on the Erie Canal at Bushnell's basin is holding up considerable Canadian lumber that was consigned to tide water and points east of Rochester. Canal navigation will be extended fifteen days longer than usual, to November 30, because of the break.

The Canadian Pulp and Lumber Company of Niagara Falls have built a 400 foot conveyor for the unloading of wood pulp from boats onto Tonawanda Island at this port. Previously the pulp wood was shipped from Quebec to Niagara Falls by rail. The change from rail to water transportation as far as the Tonawandas and the remainder of the way to the Falls by rail will save greatly on freight charges.

The departure of a steamer from Buffalo recently with a cargo of lumber for Toronto is by no means an experiment as referred to by the local press. It is a well known fact that water shipments are much more economical than rail and cargoes of lumber have often left the Tonawandas and Buffalo by water for Canadian ports, principally Toronto. So little lumber goes north from the States however, at least from local ports and Buffalo, that most of it has gone over the quicker rail route. Some large shipments of yellow

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pine and cypress have been sent by boat, but this was some time ago.

Charters were made yesterday for shipments from upper lake ports at $2.50 per thousand feet. Mixed cargoes are still bringing a $2.75 rate. Rates are holding firm and there are few boats to be chartered.

Car Shortage Restricting Montreal Trade

Montreal, Sept. 23rd. (Special correspondence of the Canada Lumberman): As the fall approaches, and cars are being sent west for the harvest, there are renewed complaints of a shortage in this respect. On all sides one hears strong remarks as to the way the lumber trade is being restricted by the inadequacy of the car service; and as time goes on, it is certain that the situation will become worse. Some wholesalers are fortunate enough not to depend mainly on the railways; water-carriage is their chief stay, and even in those cases, business is being upset by the poor supply of cars. Orders there are in plenty, and business all round is booming—but as the mills are unable to deliver the lumber in anything like sufficient quantities, many orders have to go unfilled, or are only partly filled. Some shipments are delayed over a month.

Most of the wholesalers have as much work as they can handle, and despite the difficulties attendant on the poor transportation facilities of the season, have made a record turnover. The big building programme has, of course, been an important factor in local trade, and, judging from the various projects contemplated, there is a prospect of the revival continuing. Prices have naturally kept firm.

The exceptionally wet weather has been all against the drying of stock, and the planing mills have had their own difficulties in this respect. Some of the new cut is in pretty good shape, but taken all round the season has been a poor one for drying.

Dimension timber is in good demand, in fact better than the supply owing to car shortage. The export trade is satisfactory, shipments to Great Britain being on a large scale. Much more would have been sent to the other side had there not been a scarcity of ocean tonnage and a lack of railway facilities.

In the paper and pulp market, prices of chemical pulp keep high, and appearances point to these being continued. The mills, too, are working at full pressure. Ground wood has eased off, on account of the heavy rains, giving large water powers and thus allowing increased production. The paper section is firm in nearly all departments.

Quebec Trade Quiet

Quebec, Sept. 21.—There is little of interest to report in the local lumber market. The recent advance in freight rates will, no doubt, check shipments to Europe this fall from the St. Lawrence. A steamer was recently chartered here to carry a cargo of deals from a Nova Scotia port to London at 67s. a standard. This is said to be the highest rate paid in twenty-five years. The demand for lumber for local consumption continues good with prices steady. Pulpwood prices remain firm at $7.50 to $9.25 per cord.

Increasing Demand on the Prairies

The demand for lumber and general building supplies in Manitoba and Saskatchewan during the month of September was considerably larger than at the corresponding time last year. The bulk of the business was, of course, done in the cities and towns, the farmers being too busy at harvest to purchase their lumber requirements. Representatives of the mills who have recently been in Winnipeg state that the volume of business so far this season has exceeded expectations. There appears to have been a continual shortage of cars for hauling lumber, even before the harvest, and it is being predicted that the situation will be critical when the fall grain movement starts in earnest.

How To Develop Foreign Trade

The development of foreign trade opportunities is a feature of modern business methods in Canada and the United States which has been an important factor in the success of the manufacturing industries of both countries. One of the first problems confronting a company which wishes to get into touch with foreign trade is to secure a list of possible customers, and having secured a list, to keep posted in regard to their requirements and continual alterations. In the United States, a plan has been developed of late which enables companies to secure information of this nature and at the same time to keep their names and their products continually before the best class of foreign customers. The Commercial Bureau Company, Hudson Terminal Buildings, 50 Church street, New York, have for the past few years, with the approval of the Department of State, been furnishing the United States Consular Offices in foreign countries with catalogues carefully and concisely briefed in card files. These files are prepared in the various foreign languages required and furnish a splendid medium for the use of foreign purchasers who wish to become acquainted with the manufacturers of any particular articles of which they are in need. The card files are sent out once a month and all additions or alterations to former files are also sent at the same time. In this manner manufacturers need simply to cooperate with the Commercial Bureau Company in order to be kept in continual touch with the best foreign opportunities for disposing of stock. The system is one which has already proved its exceptional value and which promises to become the most important of all agencies for the promotion of foreign trade.

Operations Commencing in New Brunswick Woods

A despatch from Fredericton, N.B,. says: Lumbermen are already engaged in hiring men for the lumber woods and report that the labor supply just now is not equal to the demand. The first crews left Fredericton about the third week in September. Wages this year will run from $25 and $28 up to as high as $34 per month, or about the same as last year. It is a little early yet to get figures as to the lumber cut on the St. John River, but it is said that it will be about the average. On the Restigouche, however, the cut will not be as large as last year, owing to the Shives Lumber Company having left about twenty million feet of logs on the landings last spring. The Restigouche booms handled the largest number of logs this season in their history, about 120 million feet of logs passing through. It is said that the freshets brought out some logs cut as long as seven years ago.

The Hollow Backing of Casings

In hollow backing casings it ordinarily does not make very much difference if the hollow back is a little to one side or the other, nor if it is made with a knife more or less in need of sharpening or full of small gaps. The prime object is to remove the back in the middle of the piece to get a good edge joint and have the shrinkage alike on both sides.

But I have noticed quite a number of cases lately where the hollow backing has been turned outward, to serve as the mold of the casing, and if the work on the hollow backing had not been quite as nice as that on the face of the casing it would not have answered the purpose. Of course, this refers to casings made with a full square edge that could be used either side up.

In one case the carpenter told me he had bought No. 3 casing and used the hollow back for a mold, the results being quite satisfactory, with a considerable saving in the cost. Stock that is a little thin in the running will work No. 1 when turned over, if the work on the bottom is nicely done. H. M.

National Hardwood Inspection Results

The National Hardwood Lumber Association report that during the month of August their total inspections amounted to 18,041,552 ft. an increase of 2,132,052 ft. over July 1912, which was the former month. This volume of work was accomplished with earnings of the inspectors, slightly in excess of the actual expense. The combined inspections for the first three months of the new fiscal year (June, July and August, 1912) amounted to 47,200,229 ft. which is an increase of 16,379,524 ft. over the corresponding months of 1911.

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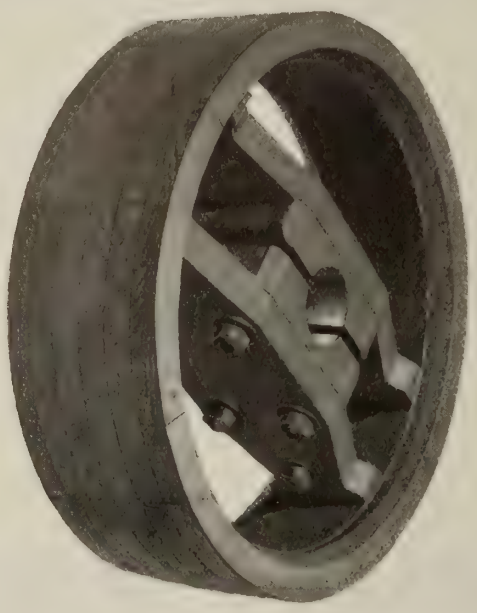

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EDGINGS

Ontario

Robert Book, Smithville, Ont., will build a sawmill this fall. He already operates a planing mill at Smithville.

Evans Bros., piano manufacturers, Ingersoll, Ont., are calling for tenders for a dry kiln with a capacity of 30,000 feet.

S. Anglin & Company, Kingston, Ont., have just completed a contract for supplying all the interior and exterior woodwork for the new addition to the east block of the Parliament Buildings, Ottawa.

The Ludlam, Ainslie Sash & Door Co., Leamington, Ont., are preparing plans for the erection of a sash and door plant to cost $25,000 in the place of the one which was recently destroyed by fire. The company will require new machinery.

Webb Lumber Company Limited has been incorporated with a capital of $40,000 to manufacture and deal in all kinds of lumber and builders' supplies, with head office at Toronto. The provisional directors are R. W. Webb, J. A. McAndrew and W. H. Irving, all of Toronto.

Hon. Adam Beck, Continental Life Building, Toronto, has awarded a contract for the erection of a factory to cost $20,000 on Wilton avenue, Toronto. The architect is Jno. M. Lyle, 14 Leader Lane. The building is to be of three storeys and basement, stone and cement foundation.

The ratepayers of Aurora recently carried municipal by-laws granting to the Collie-Cockerill Company, makers of office furniture, a loan of $15,000 for ten years and a fixed assessment of $6,000 for a like period. The company will begin operations immediately on the construction of a factory. Its present plant is in Toronto.

The Cornwall Rossing Mill enterprise, Cornwall, Ont., which has been standing in abeyance for several years, is to be carried to completion. The erection of the plant was commenced six or seven years ago, but it was not completed. Operations have been resumed and it is understood that the plant will be in full running order and business commenced this fall.

One of the most disastrous fires that ever visited Parry Sound occurred recently when the veneer factory belonging to Messrs. George Neibergall & Son was completely destroyed. The fire is supposed to have started from a hot box and had made such headway before being discovered that it was impossible for the fire brigade to save any portion of the building. The total loss will reach from $75,000 to $100,000. There was $25,000 insurance on the building and plant, but none on the lumber, several piles of which were destroyed. Not only is the burning of this factory a heavy loss to the Messrs. Neibergall but it is a serious loss to the town as 55 people have been thrown out of employment.

Eastern Canada

The Grier Timber Co. Ltd., Montreal, Que., has been registered.

Lundreville & Langevin, sash and door manufacturers, of Montreal, have been registered.

Grenier and Binnette, Cowansville, Que., have been registered to carry on a business as sash and door manufacturers.

The headquarters of Beaurivage Lumber Co. have been removed from St. Agapit, Que., to Craig's Road, Lauzon, Que.

The Jas. McLaren Co., Buckingham, Que., are considering plans for enlarging their pulp works so as to increase their output.

R. B. Smith, Oromocto, N.B., is planning to erect a saw mill at Lakeville Corner, N.B. He will require saw mill machinery.

Ouellette, St. Pierre & Cie, Longueuil, Que., have been registered to carry on a lumber business and to operate a sash and door factory.

Walter Reed's lumber, sash and door factory at Montreal is reported to have been damaged by fire recently. The loss was covered by insurance.

Demase Lalonde, 1224 St. Lawrence Blvd., Montreal, Que., is planning to erect a sash and door factory on Christopher Colombe street. He will require steam boilers and woodworking machinery.

Bert Dunham has awarded a contract for the erection of a shingle mill at Lower Southampton, N.B., at a cost of $14,000. The Dunbar Engine and Foundry Company, Woodstock, N.B., secured the contract.

For the sum of $223,000, Shearer, Brown & Wills, Limited, lumber merchants, have sold a portion of their property to the Imperial Wire & Cable Company. The property fronts on Shearer, St. Patrick and Richardson streets.

The frame construction of the new shingle mill which is being erected by Messrs. Harrison & Hicks, at Dalhousie Jct., N.B., has been completed, and the mill is nearly ready for its machinery. The cost of the mill is to be about $6,000.

The Laurentide Company, having decided to remove its Sales Department from Grand 'Mere to Montreal, have taken offices in the Canada Life Building. Mr. J. H. A. Acer, treasurer of the company, is in charge of the Montreal office.

It is reported that Donald Fraser & Son, Plaster Rock, N.B., are considering the erection of a pulp mill at Edmundston, N.B. The manager is Mr. A. Fraser, Plaster Rock, N.B., and the engineer is Mr. Fleming, care Donald Fraser & Son.

Jas. Scott is preparing plans for the erection of a sawmill to cost $6,000 at Lower Woodstock, N.B. Mr. Scott's address is c/o Harry Dunbar, Woodstock, N.B., who is the architect for the new mill. The plant will have concrete foundation, will be of wood construction and a steam power plant will be installed.

Eastern Quarries of Canada, Limited, have been been incorporated with a capital stock of $25,000 to carry on business as civil engineers, designers,

builders, lumber and woodworkers, &c., with head office at Montreal. The incorporators are J. G. Ross, W. R. Smith, engineers, and P. F. McCaffrey, all of Montreal.

The Sydney Lumber Co., Dalhousie, N.B., are drawing up plans for the erection of a new saw mill costing $50,000, to take the place of the one which has recently been destroyed by fire. N. J. Gorman is the general manager and the plans are being supervised by Mr. M. J. Buttler, general manager of the Dominion Coal Co., Glace Bay, C.B.

The Great West Iron, Wood and Chemical Company, with head office at Dorchester, N.B., have under consideration the removal of their plant from Dorchester to Prince Albert, Sask., where they have been granted a fifteen-acre site. The directors of the company are D. B. Hanna, 30 Castle Frank Road, Toronto, and F. H. Phippen, Canadian Northern Building, Toronto.

The Howard Smith Paper Mills, Ltd., 138 McGill street, Montreal, are calling for tenders for the erection of a paper mill at Beauharnois, Quebec, to cost $400,000. The architects are the Stebens Engineering and Manufacturing Co., Watertown, New York. The plant is to be five storeys high, 165 ft. x 85 ft., two storeys, 200 ft. x 66 ft., and two storeys 100 ft. x 50 ft. The company will be in the market for construction materials, fire escapes and extinguishers, boilers, paper machinery, etc

It is expected that the reported new issue of Laurentide Pulp & Paper Company stock to cover the cost of the power development will amount to $2,000,000. It has also been reported that some of the interests identified with the Spanish River Pulp and Paper mills have been been buying Laurentide stock with a view of having the relations between the companies entirely friendly, owing to the possibility of a consolidation some time in the future. About six months ago the Laurentide interests were reported to be heavy purchasers of Spanish River stock, so that it would seem as if this kind of dealing was reciprocal

Western Canada

The Imperial Lumber and Elevator Co., Lewvan, Sask., have sold their business to M. J .Walker Lumber Co., Ltd.

The Dominion Lumber Co. Ltd., are opening a wholesale lumber business at Edmonton, Alta., and will handle a full line of lumber, laths, shingles, and mill work at wholesale.

The Phillips-Hoyt Lumber Company have opened an office and are handling builders' materials at West Burnaby, B.C. A new siding is being now put up for the company connecting with the B.C.E.R.

The Kerr & Adams Manufacturing Co., Humboldt, Sask., are erecting a planing mill of which the walls have already been put up. The building is of two storeys, frame construction and shingle roof.

The Leitch-McLean Lumber Company, Limited, with head office at Saskatoon, Sask., has been incorporated with a capital of $100,000. It will likely establish branches at several points throughout the province.

The Rogers Lumber Yards, Ltd., Moose Jaw., Sask., which was recently incorporated, with a capital of $2,000,000, contemplate the erection of several saw mills in the West. They are at present planning a mill for Moose Jaw, Sask.

The North Burnaby Lumber Co. Ltd., has been incorporated at Victoria, B.C., with a capital of $10,000 for the purpose of carrying on a general lumber and sash and door business in all its branches. The head office is to be at Vancouver.

The Canadian Puget Sound Lumber Company have awarded a contract for rebuilding their planing mill at Rock Bay, B.C., which was recently destroyed by fire. Parfitt Brothers, Vancouver, B.C., have secured the contract.

A despatch from Revelstoke, B.C., states that the Dominion Sawmills and Lumber Co. is now operating all four of its mills and owing to the improved market for lumber the company is likely to extend its mills and establish yards in the prairies.

A Port Moody, B.C., despatch says: After a long period of successful enterprise in connection with the Emerson Lumber Company, the management will shortly sell their interests to the National Finance Company. The new firm will take possession on October 1.

Johnstone Strait Lumber Company, Limited, has been incorporated with a capital stock of $500,000 to carry on a general lumbering business in all its branches, with head office at Vancouver. The incorporators are Wm. Bain, J. S. Lovell and Robt. Gowans, all of Toronto.

The Empire Lumber Company, Limited, Winnipeg, has been incorporated with a capital of $300,000 to carry on a general lumbering business. The personnel of the company includes G. N. Northrop, Minneapolis; U. Wurtels, Saskatoon, and M. C. Walston, L. H. Northrop and F. C. Cane, of this place.

A deal has just been put through in southern Alberta by which the Citizens' Lumber Company and the Pioneer Lumber Company, which are practically merged, with head office in Lethbridge, have purchased the lumber yards of the Farmers' Lumber Company at ten different towns. The latter company retains its yards at Lethbridge.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

1067. **Ash or hazel twigs.**—Inquiry is made for the names of Canadian shippers of ash or hazel twigs, ¾-inch, for use in the manufacture of handles for stone-breaking hammers.

1075. **Paper.**—A paper importer of Buenos Ayres desires to be placed in touch with Canadian mills manufacturing 'news print' paper. C.i.f. quotations Buenos Ayres to be addressed to the London office of the firm.

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St. Charles Brand

Evaporated Milk

Is the old reliable, has always taken the lead and always will.

The BEST for the CAMP, the MINE and the HOME.

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Originators of Condensed Milk and Largest Manufacturers of Milk Products in the World.

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Dry Mill Cull and Box Lumber Becoming Scarce

These grades are being rapidly picked up. We have still a nice stock of last season's cut.

White Pine *for the* **Wholesale Trade**

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Belting—Our long experience in the making of Rubber Belts enables us to specialize on this line. "Monarch," "Red Strip" and "Lion" are our leading brands for power transmission. (Write for Booklet B-1.)

Packings—"Redstone" High Pressure Sheet Packing has proved by test that it will outlast any other similar packing on the market We make Spiral and Ring Packings, etc., that are equally reliable. (Booklet P-1.)

Hose—for Steam, Water, etc., etc., in various grades, made especially to give satisfactory and economical service under different conditions. (Booklet H-1.)

Fire Hose—One or more of our twenty brands of Fire Hose will be found, not only in the best equipped Factories, Mills, etc., but in almost every Fire Department in the Dominion. (Booklet H-1.)

The Gutta Percha & Rubber Mfg. Co. of Toronto, Limited

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THE FILING ROOM

Why don't you swage and shape your cylinder saws with a Hanchett Cylinder Swage and Shaper? Will cut more and better staves. Let us send you one on trial, to be returned at our expense if unsatisfactory.

Ask for Catalog No. 5 just off the press

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"HANCHETT SWAGES DO GOOD WORK"

Everything
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Prompt shipments on all orders.
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J-M ASBESTOS ROOFING

The importance of **fireproof** construction was so vividly demonstrated to the owners of the baseball grandstand at the Polo Grounds in New York by the disastrous fire which destroyed their $200,000.00 structure last year, that they decided to take no chances of a repetition. They therefore built the new grandstand, shown above, of materials approved by the highest authorities on fireproof construction—steel, concrete and J-M Asbestos Roofing.

Being made from Asbestos rock fibres and Trinidad Lake Asphalt, J-M Asbestos Roofing is **all** mineral all the way through—nothing in it to rust, melt, crack or deteriorate with age. It will ordinarily last as long as the building it covers.

And it is the cheapest-per-year roofing because it is the only ready-to-lay roofing which never needs coating. Its **first** cost is the **only** cost.

The grandstands and pavilions at Toronto, Cleveland, Detroit, Boston, Minneapolis and Washington are also covered with J-M Asbestos Roofing. And the new grandstand and pavilion now being built at American League Park, Boston, will be covered with this practically indestructible roofing.

J-M Asbestos Roofing is suitable for any type of building, anywhere.

Write our nearest branch for Samples, Catalog No. 303 and full particulars of our Proposition to Dealers.

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Manufacturers of Asbestos and Magnesia Products

TRADE ASBESTOS MARK

Asbestos Roofings, Packings, Electrical Supplies, Etc.

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DOUBLE
THE CAPACITY OF YOUR
DRY KILN
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60% Cutting Waste 35% on Machining
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Right for the Pocket — That's where imported brands touch you hardest. But the fine flavor of Tuckett's Cigarettes tickles the palate without "hazarding" the pocket and scores heavily with those who know good tobacco. Take your cue from this: Tuckett's gives you all the goodness of the best imported brands without exacting a forfeit for duty costs.

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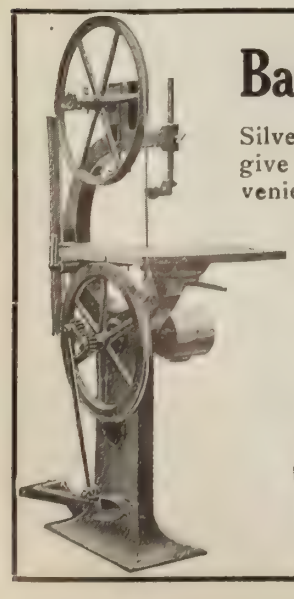

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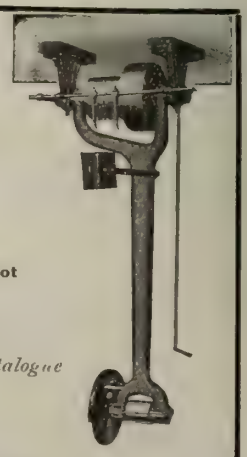

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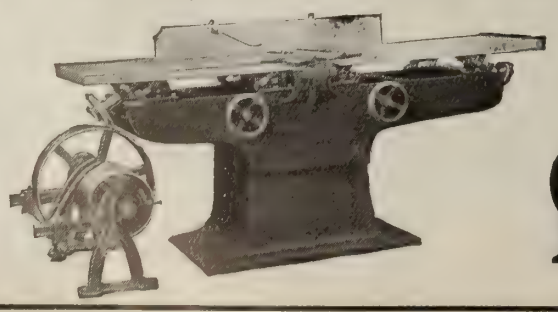
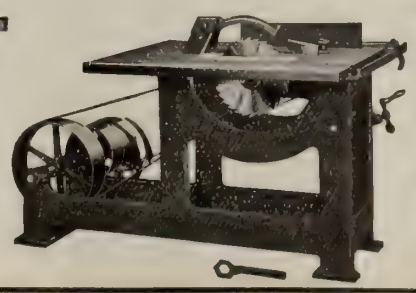
Silver's Machines are high-pressure machines
They wi l do your work to the limit and do it well





JOINTERS—8, 12, 16, 20 and 24-inch
BAND SAWS—20, 26, 32, and 36-inch
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Send for 1911 Machinery Catalogue and Special Prices at once.

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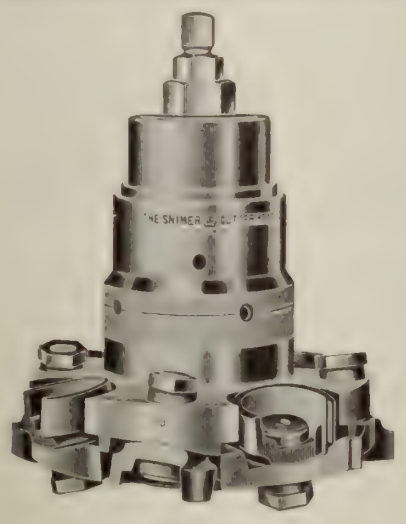

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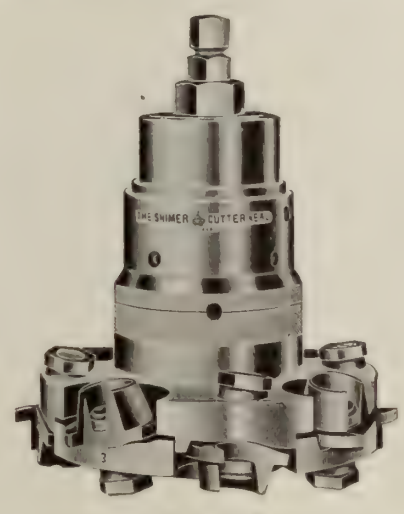

Fig 628

The "Shimer Limited" with Expansion, price $72.46 per set, complete.

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You will eventually realize that the Shimer Limited Cutter Heads are the tools you need to increase your output without sacrificing quality or increasing expense. You will find that the mills that are using them are perfectly satisfied and will give testimony to this fact.

We don't see how it could be otherwise. We have studied planing mill conditions for forty years and have kept pace with the changing conditions by designing tools that were safe, that were efficient, that were profitable to use because time and labor saving, that were lasting and that sold at low prices.

The Shimer Limited Cutter Heads sustain and enhance the reputation built up by our other tools. In addition to the special features which have made the Shimer Cutter Head famous, these new Fast Feed Heads have a self-centering device which clings to the spindle when drawn up, securing it firmly thereto. The bit seats also carry a larger surface and the bit chambers are of greater depth to compensate for the new acute angle given to the Bits for greater relief to all parts coming into contact with the lumber. The Spindle gripping device is not only positive and effective in its purpose of holding fast to the spindle, but it also centralizes the Head on the spindle for a more uniform action of the Cutters.

The results of all cutters cutting is a smoother finish, notwithstanding the faster feed, and an output far in excess of former methods.

If you have a machine that will swing Heads of 6¾ inches diameter and feed over 150 lineal feet per minute, we would like to send you a set on 30 days' trial.

Take the measurements now and let us have your order at once.

Popular Cutter Heads

The most popular of The Shimer Cutter Heads are Figs. 202 and 203. The Bits are held within conical duplex bit seats, self-centering, arranged with the very complete Expansion feature for the fine adjustment of tongue and groove thicknesses.

Price with 4 bits to each head, the set $40.95
Price with 6 bits to each head, the set 49.27
Price with 8 bits to each head, the set 57.60

Complete with Flooring Bits. The Heads will also receive Bits for thin Ceiling—⅜ at $1.30 each and Bits for 2-in. thick plank at $1.63 each.

Jointer Heads

For jointing plain edges we make several styles of Jointer Heads provided with shearing effect to produce the easiest and at the same time the smoothest work. Made of Steel Forgings they supply the strongest and best. Our very reasonable prices put the tools within the reach of all.

Price, with 4 bits to each head, the set, 1¼-in. $31.20
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Ship Lap Heads

to give you the best service must be of a kind that is always ready and in interchange with matcher and other Heads you may have fitted to your machine, thus avoiding a change of machine guides. This is one reason why the Shimer Ship Lap Heads are so generally used. The other reason is that they do work so satisfactorily that all who know their convenience take them in preference to others.

Price, with 4 bits to each head, the set, 1½-in. thick, $34.84
Price, with 4 bits to each head, the set, 2½-in. thick 35.88

Double Ceiling Heads

These heads have a special design to suit the purpose of double tonguing and grooving, with overlapping of the bit cutting edges to produce perfect clearance and to protect the leading points from unnecessary friction and wear.

They double the capacity of any matcher or moulder and provide a means of turning out single surfaced ceiling or flooring upon the most economical basis.

Price, Double Ceiling Heads complete with Bits, net, $40.94

Door, Sash and Coping Tools

That save all the hand fitting. No changing of patterns, therefore, no trouble in framing the door and sash parts when they are matched up with the Shimer Cutter Head. We relieve you of that detail of the business when we place the mould in counterpart within the contour of the Bits. The Bits are filed only to sharpen and being set by means of a gauge give accurate and uniform results. Prices very reasonable.

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The Shimer Reversible Cutters for Single Spindle Shapers, Variety Moulders or Friezers, are carefully moulded opposite to the shape of the mould to be produced, in such a way as to have only the cutting edge touch the lumber. They are complete—inexpensive—time saving. We also make One-Way Cutters for the Double Spindle Shaper.

Thin Steel Knives

Advanced ideas referring to the planing and surfacing of lumber have developed into the use of the thin blades, made from high speed steel, which when properly tempered and treated, serve for one or two days of work on hard maple, oak or hickory.

These blades are known as our Bedee Knives and are recommended by users as the best that can be procured. For the benefit of those desiring to use this style of a knife we have facilities to furnish them in any length or thickness.

Write us about your requirements.

Samuel J. Shimer & Sons

Milton, Pa., U.S.A. **Galt, Ontario, Can.**

What J. D. Shier says about the Barkey Lumber Register

Barkey Bros., Stouffville, Ont.

Dear Sirs,

Yours to hand and noted. We have been using one of the George Lumber Registers for some years past and find it still working well. It gives very accurate measurements and have never known it to make a mistake. When in need of another we will certainly get one of the same kind.

We remain respectfully yours,

Feb. 5, 1908. J. D. SHIER, Orillia, Ont.

Can be used on any moulding or matching machine.
Ensures absolute accuracy and saves one man measuring.
Sent on 30 days' trial, return at our expense if not satisfactory

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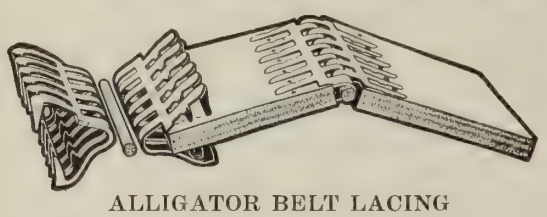
Sole Manufacturers
STOUFFVILLE - ONTARIO

"LIMESTONE" Wood Split Pulleys

The Strongest Wood Pulley Made. NAILED and GLUED

We carry the largest stock of Wood Pulleys in the Country.



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Also Lukenheimer Valves, Lubricating Oils and Greases, Packings, Hose, Paints, etc.

Rush Orders Promptly Filled. **Belting in Stock 1-in. to 20-in.**

LARGE BELTS A SPECIALTY

Crescent Oil Co., Hamilton, Ontario

Are your horses of use to you?

This seems an absurd question—and the answer is always **"Of course they are"**—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	$4.50 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	15.00 doz.

Johnson's Horse Liniment, No. 2 (an oil liniment)

1 gal. jugs (Imperial)	3.00 gal.
1 lb. bottles	6.00 doz.
2 lb. bottles	11.00 doz.

Johnson's Horse Colic Remedy

A sure and speedy cure for all kinds of Colic

1 gal jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz,

Johnson's Veterinary Healing Ointment (Gall Cure)

2 lb. tins	2.25 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 doz.

Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, **Collingwood, Ont.**

The Young Company, Limited

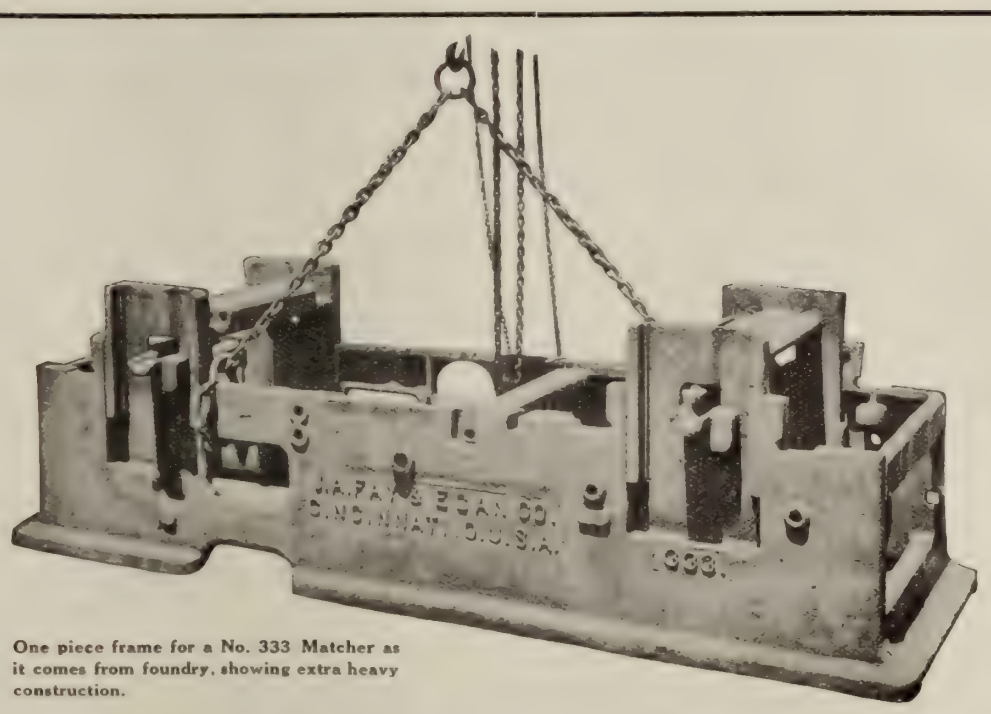
Wholesale Grocers

Lumbermen's Supplies

Complete Stocks
Prompt Shipments **Liberal Treatment**

Warehouses at:

Sudbury North Bay Toronto



One piece frame for a No. 333 Matcher as it comes from foundry, showing extra heavy construction.

FAY-EGAN "LIGHTNING" "333" Matchers are built with a reserve power sufficient to take care of any increased service required by improved manufacturing methods—

—the extra heavy one piece frame gives the strength, the big gears cut from the solid and running in grease give the power, and construction throughout gives that reserve factor which makes the "333" a good investment not only for today but for many years to come—

—as a straight matcher the "333" has been an unqualified success, in spite of the fierce efforts of competition to keep it out of the field—

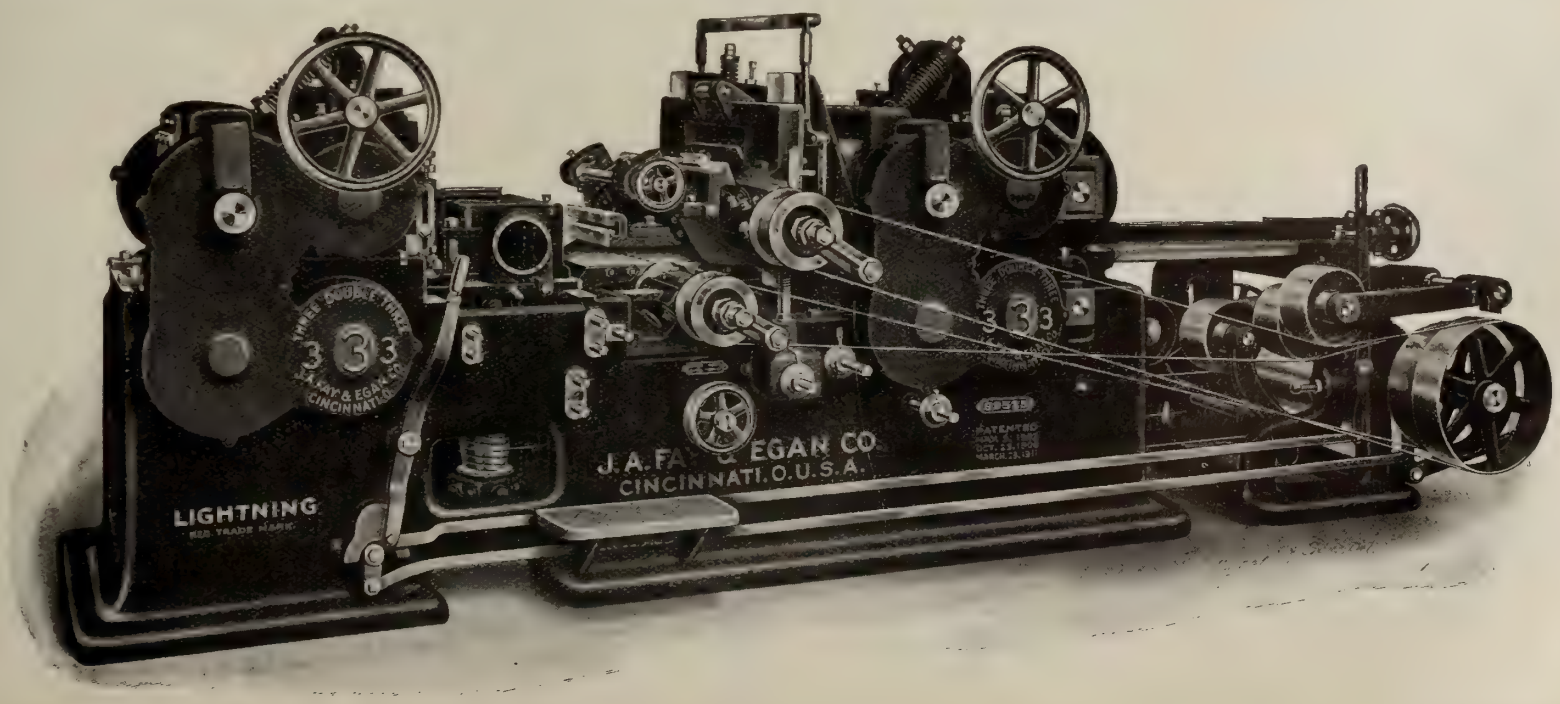
—the additional equipment made necessary by improved manufacturing methods—Profilers—Automatic Feeders—Twin Spindle Resaws—Horizontal Band Resaws—all of these we have added to the original "333" and its limit is not yet in sight.

"Can you say as much for the Matcher you are using?"—if not, write us for information on the "333."

J. A. FAY & EGAN CO.

Executive Offices and Works: 465-485 W. Front St., CINCINNATI, OHIO

Sales Offices: NEW YORK CHICAGO NEW ORLEANS ST. LOUIS SEATTLE



CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$60 00	65 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C & B	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
1½-in. No. 1, 2 and 3 Cuts	48 00	50 00
2-in. No. 1, 2 and 3 Cuts	48 00	50 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	24 00	26 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	30 00	32 00
1 x 12 common and dressing	39 00	41 00
1x10 and 12 mill cull stocks	21 00	22 00
1-in. mill cull sidings		18 50
2 x 10 common	27 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	22 50	23 50
1 x 10 inch box and common	24 00	25 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	24 00	26 00
1-in. mill run shorts		19 00
1-in. deal cull sidings		15 00
1¼-in. flooring		28 00
1-in. mill run Norway		22 00
2-in. mill run Norway		25 00
Norway, c and cf 1-in.	34 00	35 00
Norway, c and cf 1½-in.	35 00	38 00
Norway, c and cf 2-in.	33 00	35 00
Spruce mill run	21 00	22 00
Spruce mill culls	15 00	16 00
Clear in. B.C. cedar, kiln dried	55 50	65 50
Douglas Fir		
Dimension Timber up to 32 feet:		
8, 10x10, 10x12, 1x14, 12x12, 12x014, 14x14, 14x16		34 00
8x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 14x18, 16x18 18x18, and 20x20		34 50
6x14, 8x14, 12x18, 18x20		35 00
6x16, 8x16, 10x18, 12r20, 14x20, anh 16x20		35 00
10 x 20		36 00
6 x 18, 8 x 18		36 50
6 x 20, 8 x 20		37 50
Lengths over 32 ft. take the following advances: 33 to 35 ft., 50c.; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5.		
Fir flooring, eoge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		45 10
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 10
1½-in. No. 1 4-ft. pine lath		4 50
1½-in. No. 2 4-ft. lath		4 00
1½-in. 32-in. pine		1 60
1½-in. No. 1 4-ft. hemlock lath		3 75
1½-in. mill run hemlock lath		3 50
X pine or cedar shingles		1 05
XXpine or cedar shingles		2 25
XXX pine or cedar shingles		3 20
XX B. C. cedar shingles		2 40
XXX 6 butts to 2-in-		3 40
XXXX 6 to 23-16-in.		3 52
XXXXX		3 75
Hemlock No. 1:		
1x4 & 5-in. x 9 to 16 ft.		16 50
1 x 6 6-in. x 9 to 16 ft.		19 50
1 x 8-in. x 9 to 61 ft.		20 50
1 x 10 and 12 in. x 9 to 16 ft.		21 00
1x7, 9 and 11 in. x 9 to 16 ft.		19 00
1-in. No. 2, 6-ft. to 16-ft.		16 00
2x4 to 12-in., 12 and 14 ft.		21 00
2x4 to 12-in., 18 ft.		22 00
2x4 to 12-in. 20 ft.		23 50
2 x 4 to 12-in., 22 ft.		25 50
2 x 4 to 12-in., 24 ft.		28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		17 00

Hardwoods—Per M. Feet, Car Lots

Ash white, 1sts and 2nds, 1½ and 2-in.	55 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	48 00
Ash, brown, common and better	37 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1sts and 2nds, 4/4	35 00
Birch, No. 1, com. and bet., 4/4	30 00
Birch, 1sts and 2nds, 6/4 and 8/4	38 00
Birch, 1st and 2nds, 10/4 and 12/4	42 00
Birch, 1sts and 2nds, 16/4	44 00
Basswood, 1sts and 2nds, 4/4	38 00
Basswood, No. 1, com. and bet., 4/4.	33 00
Basswood, No. 2 and 3, common	17 00
Basswood, 6/4 and 8/4, 1sts and 2nds	42 00
Basswood, 6/4 and 8/4, com. & bet.	37 00
Basswood, No. 2 common and better.	29 00
Soft elm, 1sts and 2nds, 4/4	36 00
Soft elm, No. 1 com. and bet., 4/4	29 00
Soft elm, No. 2 and 3, common	16 00
Soft elm, 6/4 and 8/4 1 and 2	38 00
Soft elm, 3-in. 1sts and 2nds	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4	50 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	31 00
Soft maple, com. and better, 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	34 00
Hard maple, 1sts and 2nds, 4/4	34 00
Hard maple, common and better, 4/4.	27 00
Hard maple, 12/4 & 16/4, 1sts & 2nds.	43 00
Red oak, plain, 1sts & 2nds, 4/4	55 00
Red oak, plain, 1sts & 2nds, 6/4 & 8/4	60 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	65 00
White oak, plain, 1sts and 2nds, 4/4	55 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	60 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	70 00
White oak, ¼ cut, 1sts & 2nds, 4/4	86 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	90 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$53 00	55 00
1¼-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up	40 00	45 00
Pine good strips:		
1-in.	45 00	47 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	50 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	38 00	40 00
1-in. x 4-in. to 6-in.	30 00	35 00
1¼-in. and 1½-in.	45 00	50 00
2-in.	48 00	52 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	33 00	35 00
Pine, No. 1 dressing strips	26 00	31 00
Pine, No. 1 dressing shorts	22 00	26 00
Pine. 8 s.c. and better, 12 ft. to 16 ft.	25 00	26 00
Pine, 7 up s. c. siding 1-in.	22 00	25 00
Pine s. c. sidings 1½ & 2-in.	26 00	30 00
Pine, s. c. strips 1-in.	17 00	19 50
1¼, 1½ and 2-in.	22 00	24 00
Pine, s.c. shorts, 1 x 4	20 00	21 00
Pine, s.c. and bet. 1x5	21 00	22 00
Pine, s.c. and bet. 1x6	23 50	25 00
Pine, box boards:		
1"x4" and up 6'-11'	13 00	14 00
1"x3" to 6", 12'-16'	15 00	16 00
1"x7" and up 12'-16'	18 00	19 00
Pine shorts 6'-11' 1"x10'	20 00	21 00
1x8 and 9 No. 1 barn	29 00	30 00
O. culls r & w p	11 00	12 00
Red Pine log run,		
mill culls out, 1-in.	14 00	16 00
mill culls out, 1¼-in.	16 00	18 00
mill culls out, 1½-in.	17 00	19 00
Mill run Spruce:		
1"x4" and up, 6'-11	14 00	15 00
1"x4" and up, 12'-16'	16 00	17 50
1"x9"-10", & up, 12'-16'	18 00	19 00
1¼"x7" 8-9" & up, 12'-16'	18 00	20 00
1¼"x10" and up, 12'-16'	19 00	20 00
1½" & 2"x12" & up, 12'-16'	24 00	25 00
Spruce 1-in. clear (fine dressing and B)	24 00	27 00
Hemlock 1-in. cull	10 00	12 00
Hemlock 1-in. log run	13 00	14 50
Hemlock 2x4, 6, 8, 10, 12/16'	14 00	16 50
Tamarac	13 00	15 00
Basswood log run, dead culls out	20 00	22 00
Basswood log run mill culls out	24 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
Pine, s.c. and better, 1x7	21 50	23 00
Pine, sc. and better, 1x8	23 00	25 00
Pine, s.c. and better, 1x9	23 00	25 00
Pine, s.c. and better, 1x10	25 50	27 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	15 00	18 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	11 00	13 00
Lath per M:		
No. 1 white pine 1⅜-in. x 4-ft.	3 75	4 00
No. 2 White Pine	3 25	3 50
Mill run white pine	3 00	3 25
Spruce, mill run 1½-in.	2 75	3 00
Red pine mill run	3 00	3 25
Tamarac mill run	1 25	2 00
Basswood, mill run	2 50	3 00
Hemlock, mill run	2 75	3 00
32-in. lath	1 50	1 75
Pine Shingles		
xxxx, 18-in.	3 00	4 00
Clear butt 18-in.	2 50	3 25
xx		1 75
White Clear Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	2 75	3 25
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

	cts.	
First class Ottawa waney, 18-in. average, according to lineal	85	90

Oak—Michigan and Ohio

By the dram, according to average and quality	62	67

Elm

By the dram, according to average and quality, 40 to 45 feet	80	83
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash

13 inches and up, according to average and quality	25	30
Average 16 inch	30	40

Birch

14 inch	18	20
15 inch	22	24
16 inch	26	28
18 inch	32	30

Quebec Spruce Deals

	Per M.	
12 feet and up x 3 x 9 and up	18 00	19 00
Oddments	15 00	16 00
Boards, 1 and 2 in.	15 00	16 00

Birch Planks

1 to 4 in.	16 00	17 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	54 00
1 in., 8 in. and up wide	67 00
1¼ and 1½ in. and up wide	69 00
2 in. and up wide	72 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	67 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	47 00
1¼ in., 8-in. and up wide	57 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½-in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	48 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	22 00
1-in. x 5-in.	24 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	30 00
1-in. x 12-in.	35 00
1-in. x 13-in. and up	35 00
1½, 1½ and 2-in.	32 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	20 00	22 00
No. 2, 1¼, 1½, 2-in.	17 00	21 00

Mill Culls

Mill run culls, 1-in.	16 00
1, 1¼, 1½ and 2-in.	18 00
No. 2	14 00 15 00

Lath

No. 1, 32-in. pine	1 50
No. 2, 48-in. pine	3 75
No. 3, 48-in. pine	3 00
No. 1, 48-in. pine	4 25
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft	8 ft	10 ft	14x16 ft
2 x 4	14 00	17 00	20 50	18 50
2 x 6	16 50	17 00	20 50	18 50
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Dimensions, S. 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
	27 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine mixed widths	20 00
No. 4 common pine, mixed widths	14 50
No. 5 common pine, mixed widths	10 00

SHINGLES

XXX B. C. Cedar	$2 90
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00

(Continued on page 72)

DISSTON
Quality Tells

The Mechanic Using

DISSTON

Saws, Tools and Files

obtains those full and satisfying results which make him an earnest advocate of the DISSTON BRAND

HENRY DISSTON & SONS

INCORPORATED

Keystone Saw, Tool, Steel, and File Works

ESTABLISHED 1840

PHILADELPHIA, PA.

BRANCH HOUSES { Chicago, Boston, Cincinnati, New Orleans, Memphis, San Francisco, Seattle, Portland, Spokane, Toronto, Vancouver

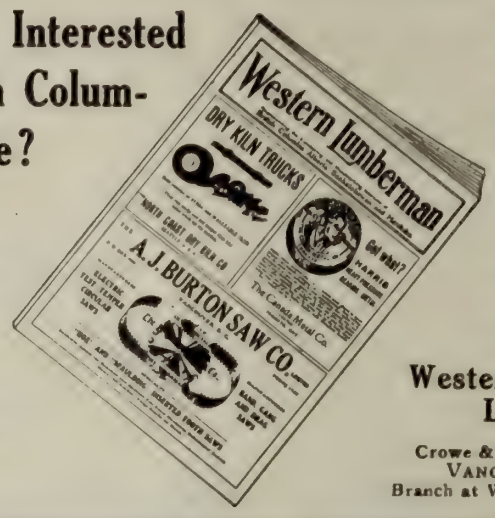
The Peter Hay Knife Co., Limited
GALT, ONTARIO

MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters and Mortise Chisel

Are You Interested in British Columbia Trade?

The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.



There is undoubtedly a big market for Mill Equipment of all kinds. Let us Demonstrate our Advertising service. We please others, we can please you.

Western Lumberman

Crowe & Wilson Chambers
VANCOUVER, B. C.
Branch at Winnipeg

Lumber Camp Ranges and Heaters

All Kinds of Stoves for Large or Small Camps

Our stoves are specially designed to meet all requirements of camp work.

We know exactly what is necessary and desirable in this class of stove.

We put into all our stoves the best of material and workmanship coupled with the best of expert experience.

The 'Leader Range' for coal and wood, shown in this cut is specially adapted to Lumberman Camps, Boarding Houses, Hotels and Railroad Construction Camp Work. We also make this Range with side hinge doors.

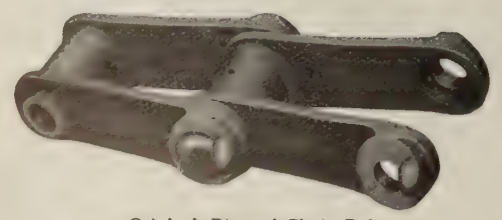
It is large, heavy and strongly built. Has good oven space and large heating surface. When a good, solid, reliable stove is wanted the 'Leader' will give satisfaction.

Write for our catalogue.

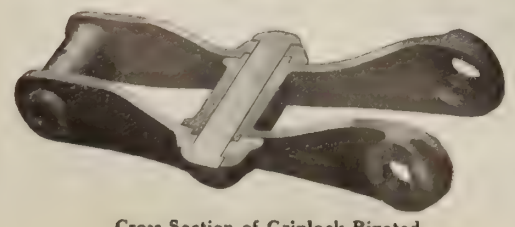
NO. 10-36A SIX HOLE LEADER RANGE AND RESERVOIR

ADAM HALL, Limited - Peterborough, Ontario

Manufacturers of Ranges, Heaters, etc., for Lumber Camps, Hotels, and Railway Construction



Griplock Riveted Chain Belt



Cross Section of Griplock Riveted

No More Breakdowns—No More Delays

This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock.** **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

Sold by **The A. M. ELLICOTT CO., Montreal, Que.**

Elevating, Conveying and Transmission of all kinds a specialty

ENGINES and BOILERS

OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

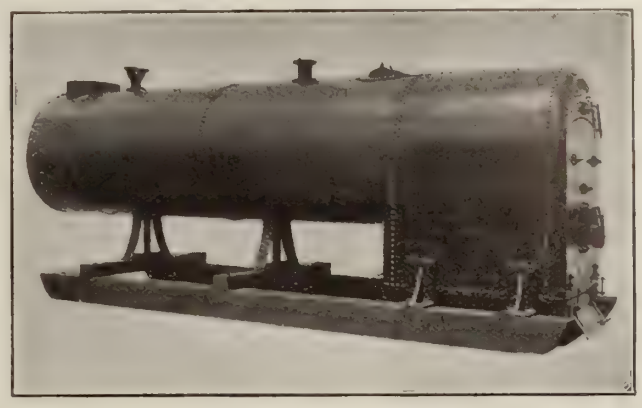
We cater specially to the lumbering industries

Write for Prices and Information

E. LEONARD & SONS

LONDON, CANADA

Agencies and Warehouses:—ST. JOHN, N.B. MONTREAL, QUE. TORONTO, ONT.
WINNIPEG, MAN. CALGARY, ALTA. VANCOUVER, B.C.



Locomotive Boiler on Skids

The Great Pulling Power of a Little "Want Ad"

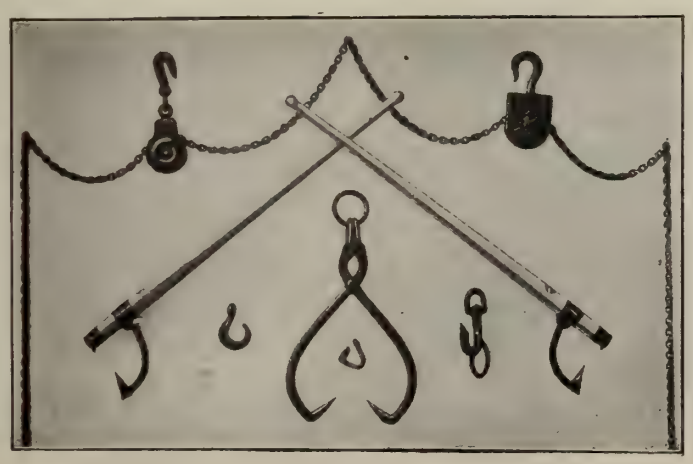
A "want" advertisement is a small thing both in size and in cost, but through a a small "want ad" great things have often arisen.
A subscriber to the Canada Lumberman and Woodworker recently inserted a small ad in the "WANTED and FOR SALE" Department of this paper and received

47 REPLIES

Have you some odd lots of lumber that you would like to move quickly?
Have you some second hand mill machinery you wish to sell or exchange?
Do you want to buy some special lots of lumber or machinery?
If so **YOU NEED** the assistance of the "Wanted and For Sale" Department.
Let us assist you in filling your next want.

Canada Lumberman and Woodworker

Toronto



When ordering from your Jobber specify

Pink's Lumbering Tools

and if they cannot supply them order direct, and you will get the best tool made

The Thomas Pink Co. Limited

PEMBROKE, Ont., Canada

Manufacturers of the best line of Lumbering Tools in Canada

CURRENT LUMBER PRICES—Continued

No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00
No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	46 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	30 00
No. 2 Barn 1 x 10	32 00
No. 3 Barn 1 x 6 and 8	23 00
No. 3 Barn 1 x 10	25 00
Box 1 x 6 and up	22 00
Box 1 x 10	23 00
Box 1 x 12	25 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

White Ash

1st and 2nd, 1 inch	40 00	42 00
1¼ to 2 inch	44 00	46 00
2½ to 4 inch	48 00	54 00
Strips	22 00	24 00
Common and culls	14 00	22 00

Black and Brown

1st and 2nd, 6 inch up	40 00	42 00
Common good culls	14 00	20 00
1st and 2nd 6 inch and up, red	40 00	42 00
1st & 2nd, white, 6 in. & up	30 00	32 00
Common and good culls	16 00	18 00

Elm

1st and 2nd, rock, 6 in. and up	34 00	38 00
Common and culls	16 00	20 00
1st and 2nd, soft, 6 in. and up	28 00	32 00
Common and culls	13 00	18 00

Maple

1st and 2nd hand	26 00	28 00
Common and culls	14 00	22 00
1st and 2nd, soft	26 00	28 00
Common and culls	14 00	22 00

BOSTON, MASS.

White pine uppers, 1 to 2 in.		100 00
Selects, 1 to 2 inch		90 00
Fine common, 1 in.		72 00
Fine common, 1¼ to 2 in.	74 00	75 00
No. 1 Cuts 1 in.		45 00
No. 1 Cuts 1¼ to 2 in.	58 00	60 00
No. 2 Cuts, 1 in.	35 00	37 00
No. 2 Cuts, 1¼ to 2 in.	45 00	48 00
Barn Boards, No. 1, 1 x 12	51 00	52 00
No. 1, 1 x 10		39 00
No. 1, 1 x 8		38 00
No. 2, 1 x 12		43 00
No. 2, 1 x 10	35 00	36 00
No. 2, 1 x 8	34 00	35 00
No. 3, 1 x 12	33 00	34 00
No. 3, 1 x 10	28 00	30 00
No. 3, 1 x 8	28 00	29 00
Canadian spruce boards	23 00	24 00
Spruce, 10 & 12 in. dimension	26 00	27 00
Spruce, 9 in. and under "		25 00
10 and 12 in. random lengths, 10 ft. and up	24 00	25 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	22 50
All other random lengths, 7" and under, 10 ft. and up	21 00	22 00
5-in. and up merchantable boards, 8 ft. and up, p 1s		21 50
Vermont spruce boards, matched		23 00
matched	22 00	23 00
1 x 2 and 1 x 3 furring, p 1 s clipped and bundled		21 00

1⅝-in. spruce laths		4 50
1½-in spruce laths		3 85

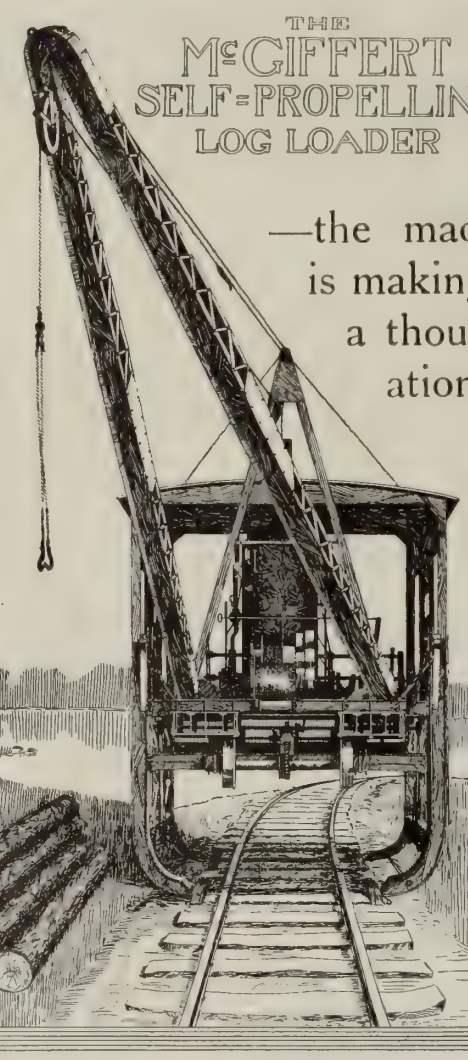
New Brunswick Cedar Shingles

Extras	$3 60	$4 00
Clears	3 25	3 60
Second clears		2 75
Clear whites		2 30
Extra 1s (Clear whites out)		1 65
Extra 1s (Clear whites in)	1 50	1 60
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 50	4 00
Red Cedar Eurekas, 18-inch. 5 butts to 2-in.		4 35
Red Cedar Perfection, 5 butts to 2¾		4.90
Washington 16-in. 5 butts to 2-in. extra red cedar		4 10

The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30 Maple, $3.25 per M. ft.; 1/24 maple, $3.50 per M. ft.; 1/20 maple, $3.75 per M. ft.; above cut to dimension.

3/16 3-ply maple, 1 st. good, 3½c. per ft.; ¼ 3-ply maple, 1 si. good, 3½c. per foot, all f.o.b. Jamestown, N.Y.

THE McGIFFERT SELF-PROPELLING LOG LOADER



—the machine that is making good on a thousand operations.

SEND FOR CATALOG No. 13

CLYDE IRON WORKS DULUTH, MINN.

International

Preparations for Horses are all sold on a Spot Cash Guarantee

Let us figure on furnishing you the following supplies for the coming season.

International Stock Food
We guarantee that your horses will do more work and keep in better order on less feed if they get International regularly.

International Silver Pine Healing Oil
Especially recommended for Sores, Bruises, Kicks, Inflammation and all flesh wounds.

International Worm Powder
Will quickly expel all kinds of worms.

International Distemper Cure
For Coughs, Colds, and Distemper.

International Colic Cure
Guaranteed to cure Colic in ten minutes.

International Compound Absorbent
Greatest Curb cure on Earth.

International Gall Cure
Cures while horses work or rest.

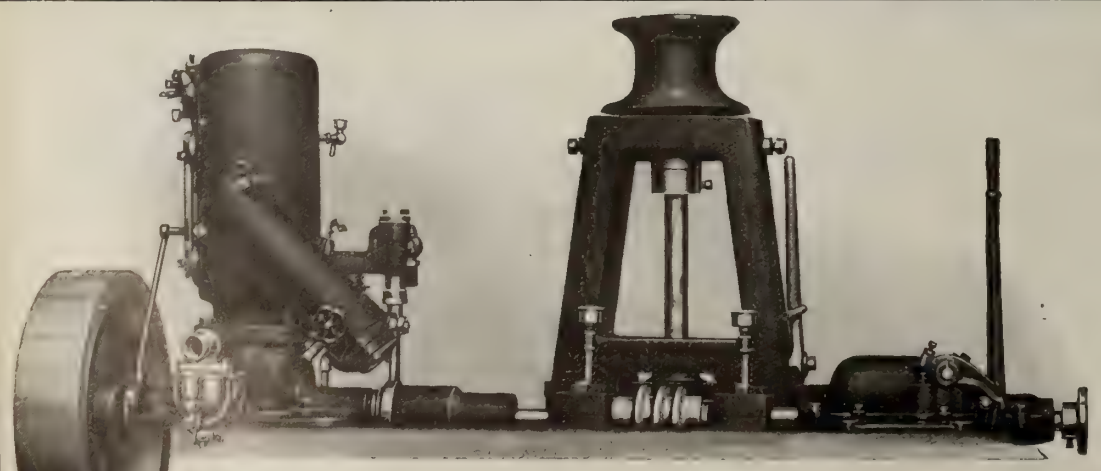
International Foot Remedy
Cures Foot diseases, keeps the hoof soft, elastic and tough

International Harness Soap
Gives new life to old harness.

All our goods are guaranteed to give satisfaction.

Write for Special Prices

International Stock Food Co., Limited
Toronto, Ont.



6 H.P. Heavy Duty Engine $175.00 Reversegear $36.00
Winch $30.00

River Driving Costs

will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25′ punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. Machinery $205.00. Complete punts $375.00. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 H.P.

Adams Launch and Engine Co.
Penetang, Ont.

MAHOGANY

We Carry Full Stocks of

FIGURED CUBAN VENEER

Making a Specialty of 1-20" and 1-8"

We import the highest grades of Fancy Hardwoods and on short notice can furnish logs or seasoned lumber suitable for cabinet work, interior finish or

Fancy Sawed Veneers

Other Stocks are :

English Brown Oak Butts—Sawed to order **Circassian and Turkish Walnut Logs**

High Grade Native Cabinet Woods and Veneers

Memorandum of Stocks on Hand and Prices on Application

The Martin-Barriss Co., Importers, Cleveland, Ohio

THE PETER GERLACH Co

MANUFACTURERS AND BUILDERS OF

CIRCULAR AND CYLINDER SAWS

STAVE, HEADING AND BARREL MACHINERY

SAW AND LOGGING TOOLS

For the Manufacture of the Following

STAVES	HEADING
BARRELS	KEGS
COOPERAGE	WOODEN WARE
HOOPS	HANDLES
PAILS	TUBS
CHURNS	FREEZERS
CANDY PAILS	FISH KITS
BOX BOARDS	BOTTOMS
CHAIR STOCK	SHINGLES
CLOTHES PINS	LUMBER

COMPLETE PLANTS

FOR THE MANUFACTURE OF

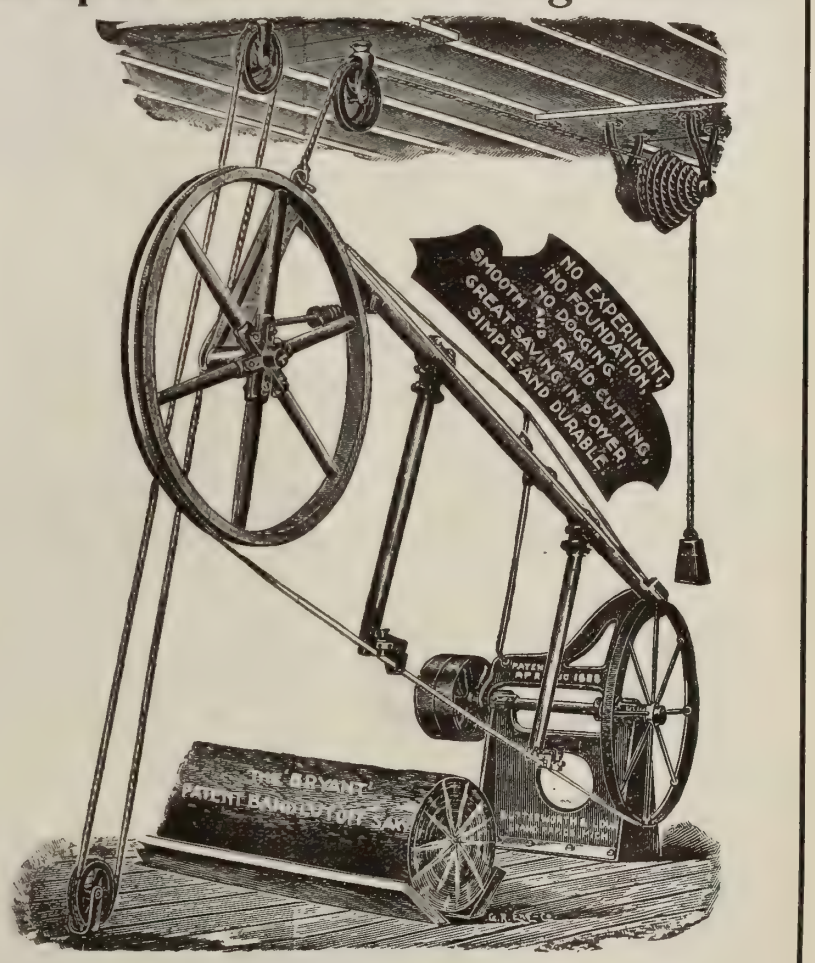
BARRELS, KEGS, STAVES AND HEADING

OUR SPECIALTY.

FOR PRICES AND FURTHER PARTICULARS, ADDRESS

THE PETER GERLACH Co. CLEVELAND. O. U.S.A.

An Up-to-date Cross-cutting Machine

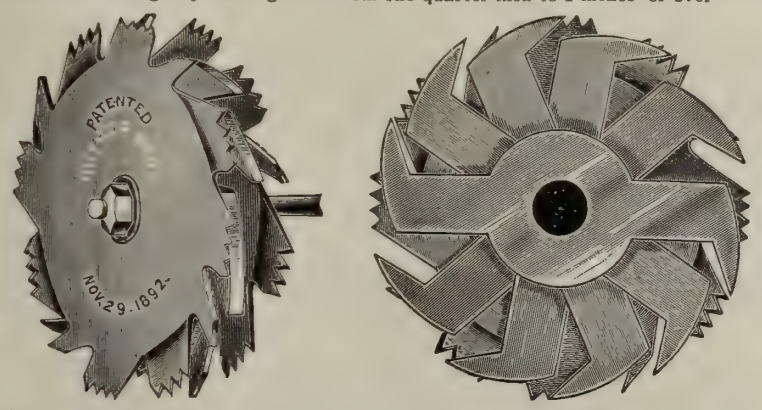


Made only by— **Butterworth & Lowe**

Send for Descriptive Price List. **221 Huron Street, Grand Rapids, Mich.**

HUTHER BROS. PATENT GROOVER OR DADO HEAD

For cutting any width groove from one quarter inch to 2 inches or over



Can be used on any Circular Saw Material. Will cut a perfect groove with or across the grain. This is the only Dado Head on the market that gives entire satisfaction on all classes of work. No screw adjustment. For different width grooves, simply remove or add inside cutters. Sold by builders and dealers of wood working machinery in all parts of the United States. Will send on approval, in competition with any other make on the market; if not the best return at our expense.

HUTHER BROS., SAW MFG. CO., Inc., 1170 University Ave., ROCHESTER, N.Y., manufacturer of Circular Saws, Morgan Pattern Lock-Corner Box Cutters, Concave Saws, etc.

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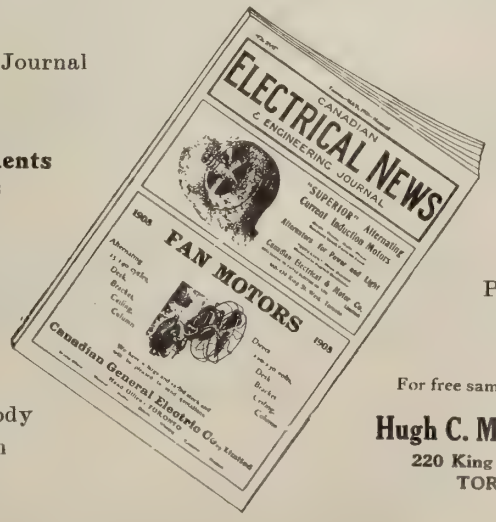
Managers
Superintendents
Electricians
and
Engineers
of
Electric Light Plants

and Everybody Interested in Electricity



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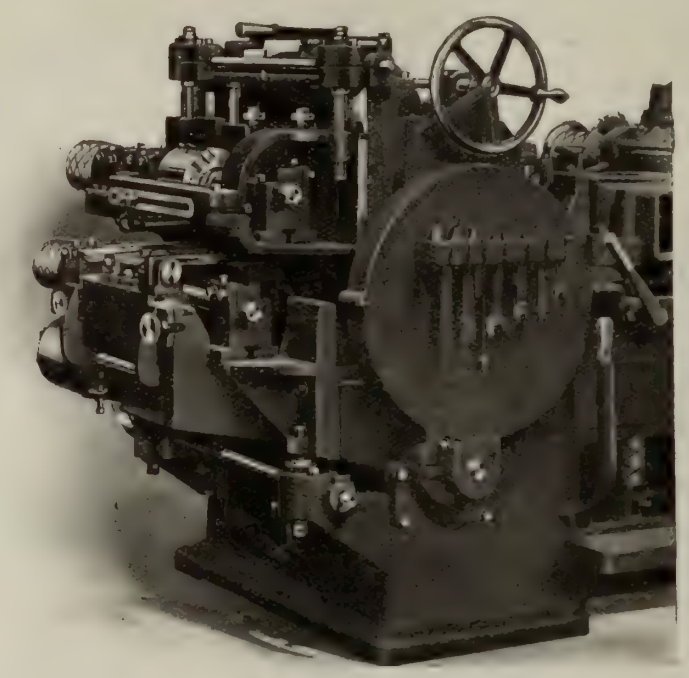

American No. 2 Profiler

AMERICAN
No. 2 Profiling Attachment

The **AMERICAN No. 2 PROFILER** is the very latest in profiling devices.

The journals are equipped with our side clamping boxes, which are quickly removable for change of heads.

The rapidity with which changes may be made from one class of stock to another cannot be surpassed.

The attachment is belted from its own countershaft which enables it to be thrown in or out of use without interfering with the machine.

The **AMERICAN No. 2 PROFILER** applies to our No. 77 and No. 65 Planers and Matchers, and when used in connection with these machines will turn out stock at the rate of 200 feet and upwards per minute.

Sales Offices :
NEW YORK
90 West Street
CHICAGO
Sharples Building
NEW ORLEANS
Canal-La. Bank Bldg.

American Wood Working Machinery Co.

Executive and General Sales Office:
Rochester, N. Y.

Sales Offices :
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First & Pine Streets
SPOKANE, WASH.
314 W. Pacific Ave.
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JAMES D. LACEY WOOD BEAL VICTOR THRANE

James D. Lacey & Co.

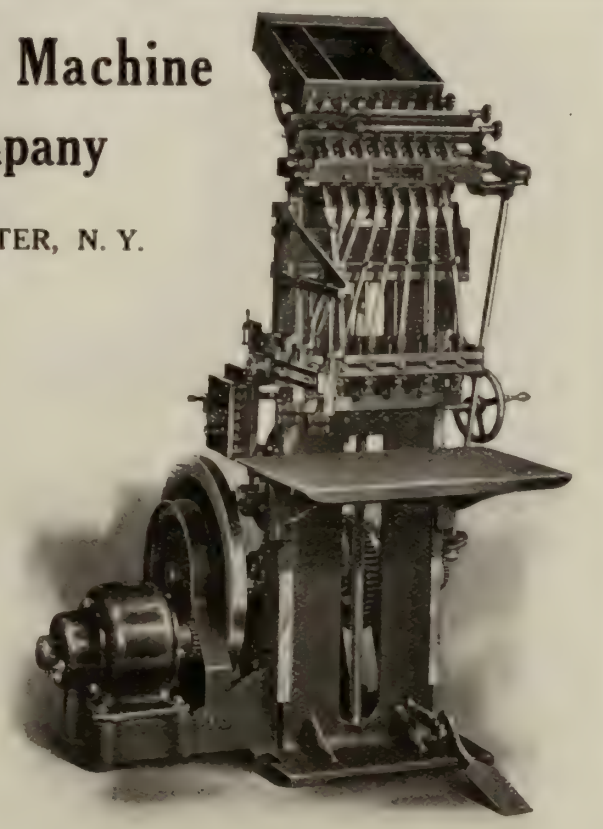
TIMBER LAND FACTORS and TIMBER VALUATORS

We submit **Detailed** estimates with **Topographical** maps of all **Timber Properties** offered through our house Representations based upon our own **Expert** cruisers and loggers, whose **Integrity** and **Experience** have been thoroughly tested over a period of many years.
We solicit correspondence with **British Columbia** timber owners and prospective purchaser

1215 Old Colony Blk. CHICAGO | **1211 Whitney Central Bldg. NEW ORLEANS** | **1104 Spalding Bldg. PORTLAND, Ore.** | **1009 White Bldg. SEATTLE**

Morgan Machine Company

ROCHESTER, N. Y.



Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.

Every manufacturer of boxes ; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N.Y.

"Dolphin" Waterproof Belting

is the answer for belting troubles in wet places.

Leather belting is acknowledged to be better and cheaper than any other kind of belting for wet places, providing it is waterproof and that the laps will not come apart.

Dolphin Waterproof Belting is guaranteed to meet all these requirements.

WE SOLICIT A TRIAL ORDER

PROVIDENCE BELTING CO.
PROVIDENCE, R. I., U. S. A.
Office and Factory, 25 39 Charles Street.

Boss Line Lumbering Tools

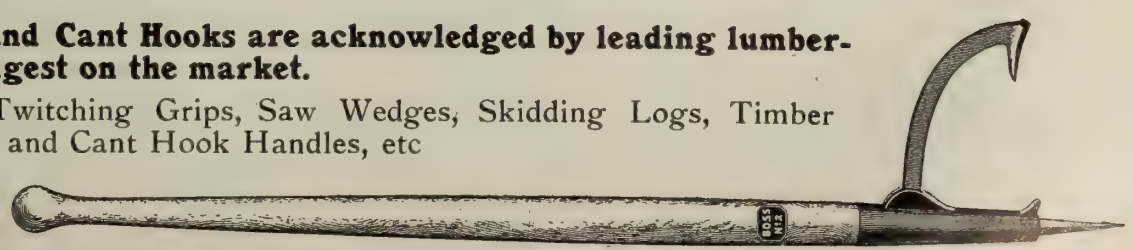
Manufactured by

The McFarlane-Neill Mfg. Co., Ltd., St. Mary's, N. B.

Forged Steel Socket Peaveys and Cant Hooks are acknowledged by leading lumbermen to be the lightest and strongest on the market.

Try our Steel Loading Blocks, Twitching Grips, Saw Wedges, Skidding Logs, Timber Carriers, Split Rock Maple Peavey and Cant Hook Handles, etc

Catalogues furnished and prices quoted on application



Make Your Power Transmission an Asset—Not a Liability.

When purchasing Belting don't come to conclusions quickly—the selection of a poor cheap belt might mean considerable loss of power and efficiency in your plant.

Beardmore Belting will save you this trouble and loss—it will also wear better and last longer than any other belting on the market. **Beardmore Belting** represents the maximum value obtainable in leather belting.

Made only from extra selected No. 1 Packer Steer Hides—tanned under the slow old fashioned process which positively ensures the long life of the belt.

Having everything under our supervision from the hide to the finished belt we are able to offer Leather Belting that we can fully guarantee.

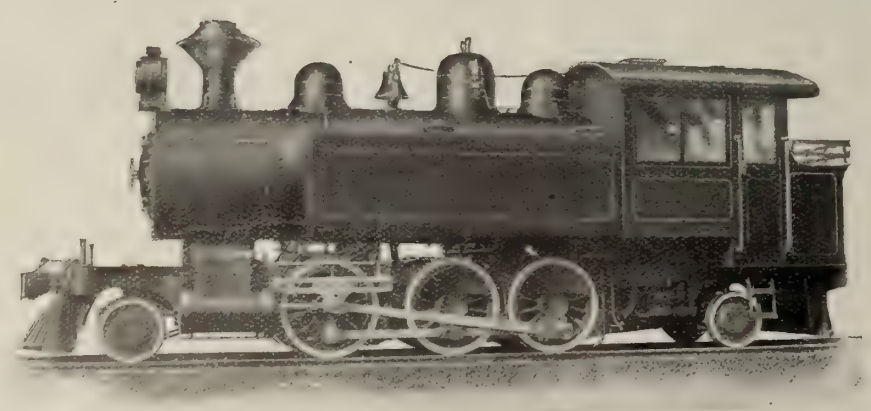
The General Supply Co., of Canada, Ltd.

356-58-60 Sparks Street, OTTAWA, ONT.

Market and Louise Streets, WINNIPEG, MAN. **115-125 Adelaide Street West, TORONTO**

SELECTION OF LOCOMOTIVES

WHAT SHOULD BE KNOWN BEFORE YOU PURCHASE LOCOMOTIVES:—



Nature of the service.
Capacity of the cars and weight of train.
Character of track—is it new or old.
Length of haul.
Is time an important factor.
Do you want a quick locomotive or a big puller.
Distance from base of supplies and quarters for the men.
Water and coal carrying capacity.
All these items and more should be considered.
A careful study of conditions may mean larger profits.
Our experience may be valuable in considering them.
A dollar saved is more than a dollar earned.

Write or wire us, or better still, come to see us.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

Makes It's Mark Vivid and Lasting

Marks that remain vivid and wear like iron are a real satisfaction to the man who handles lumber. The metallic pigments, like graphite, of DIXON'S LUMBER CRAYONS offer marvelous resistance to all kinds of weather conditions. Their marks are often visible after six months of severe exposure to sun and storms.

DIXON'S LUMBER CRAYONS

have always remained the recognized standard because of their one, uniform and dependable quality; their convenient and uniform shape and size and because of the careful selection of materials used in their manufacture. DIXON'S LUMBER CRAYONS are made in nineteen grades and colors, including black (six grades), red (two grades), blue (two grades), green, white, yellow, brown, terra cotta, violet, pink and orange. Some are made to fill particular needs—let us tell you more about them. Get acquainted.

Write for lithographed booklet No. 239, illustrated in colors.

Joseph Dixon Crucible Company
Jersey City, U. S. A.

James W. Sewall
Forester and Surveyor

Mapping and Surveying of Wild Lands
Estimation of Timber and Working Plans

(Formerly forestry manager of the Appleton & Sewall Co.)

16 Centre Street
Old Town, Maine, U.S.A.

"John Bull" *Larrigans*

Wear Like Iron

WE tan the leather these larrigans are made from and know they will stand all kinds of wet and rough usage when properly cared for. We put a counter stiffener in our larrigans and sew it in with the leg when soled and heeled—a very durable feature in our goods.

Next time you buy larrigans see that you ask for **"John Bull."**

R. M. Beal Leather Co.
Limited
LINDSAY, Ontario

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

HEISLER GEARED LOCOMOTIVES

Engine being operated by the Trout Creek Logging Co., Ltd. of Toronto, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works
ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

Lumber Horses

We are specializing this season in an extra fine line of Lumber Horses, guaranteed to be young and sound in every particular, and of extra weight and quality.

Consignments of heavy horses received regularly from the best shippers of heavy horses in Ontario.

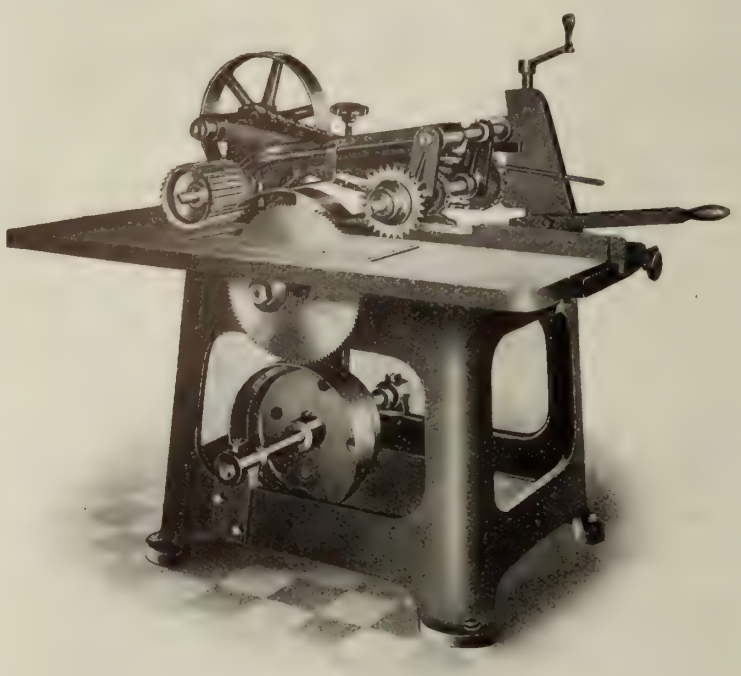
Clean and sanitary barns under Government Inspection.

Loading chutes at Barn Doors via all railways,

We can supply your wants on the very shortest notice.

WRITE US YOUR REQUIREMENTS

Union Stock Yards of Toronto, Limited
HORSE DEPARTMENT "The Place to Buy them Worth the Money"



Self Feed Rip Saw

Self Feed Gang Saw

The Stuart Machinery Co., Ltd.
WINNIPEG, MAN.
Agents for Saskatchewan, Alberta and Manitoba

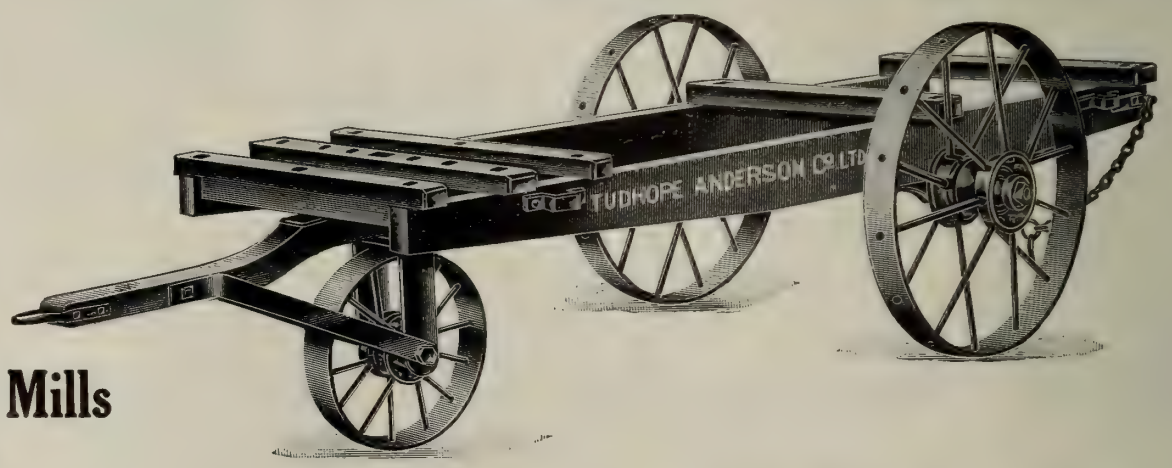
Write for catalogue. It illustrates many special Box Factory and Saw Mill machines

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.

Three Wheel Lumber Cart

with Wide Tire Steel Wheels

Used in trains or singly for platform work.



Dump Carts for Saw Mills

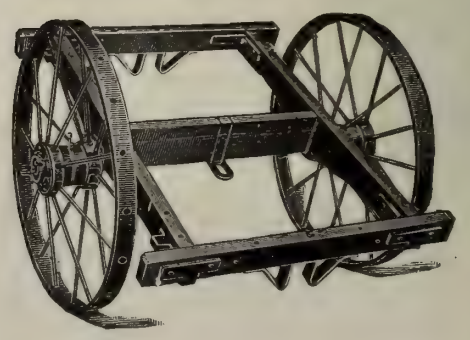
with Wide Tire Steel Wheels

In ½, ¾ and 1 Cord Capacity—extra strong of thoroughly seasoned hardwood and bolted throughout.

Detachable Lumber Trucks

with Wide Tire Steel Wheels

for Saw Mills, Planing Mills, Lumber Yards, etc.



The Tudhope-Anderson Co., Limited
Successors to TUDHOPE-KNOX CO., LIMITED
ORILLIA - - ONT.
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Wire Rope

For Every Requirement

We are specialists in the manufacture of wire rope. We can ship from stock any length or size of the wire ropes usually supplied and can manufacture specially a rope exactly suitable for your requirements. Perhaps you are having wire rope troubles—if so—drop us a line advising us your requirements and we will be pleased to make suggestions as to the class and style of rope you should use. We have had years of experience—and should know.

The Dominion WIRE ROPE Co., Limited
MONTREAL
General Supply Company of Canada Ltd.—Winnipeg Agents

MAPLE LEAF BELTING

Strong
Waterproof
True
Running

For
Indoor or
Outdoor
Work

¶ Maple Leaf is the most economic and efficient belting for power transmission and conveying, etc.

¶ It costs only half as much as leather and 25 per cent less than good rubber belting.

Write for sample and prices to the sole manufacturers

DOMINION BELTING CO.
HAMILTON, CANADA

Buyers of Groceries and Provisions

BEFORE placing your next order for Camp Supplies let us quote you prices for list of requirements. We make a specialty of this class of business.

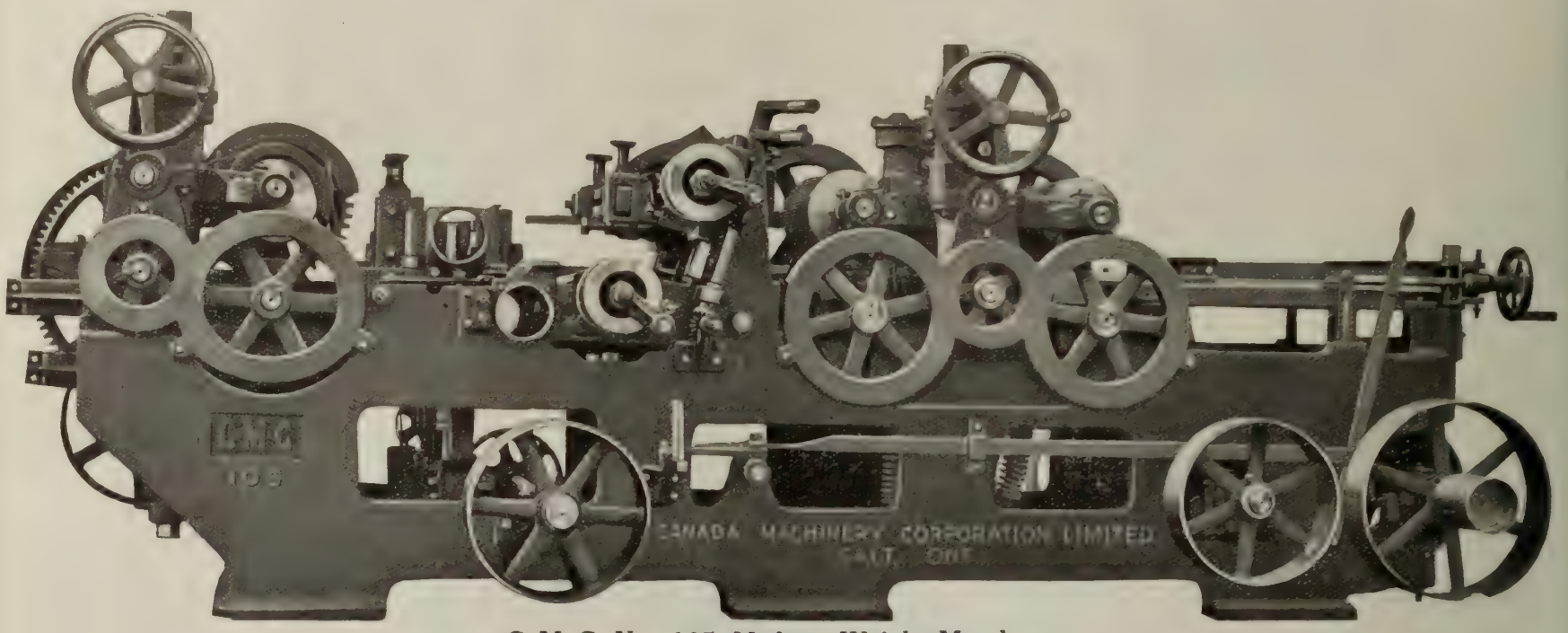
Orders shipped promptly and we guarantee the quality of all goods shipped.

H. P. Eckardt & Co. *Wholesale Grocers*
Cor. Front & Scott Sts., Toronto

No. 105 MATCHER

C. M. C.

No. 105 MATCHER



C. M. C. No. 105 Medium Weight Matcher.

Our No. 105 Matcher is not our heavy duty fast feed machine but is a high grade medium weight matcher. It is a general purpose machine and for work up to 100 feet per minute; is without an equal.

It is supplied with five rates of feed from 45 to 100 feet per minute.

Bulletin No. 105 fully describes this machine and will be gladly sent on request.

Have you our complete catalogue? If not let us send you one.

We Make the Most Complete Line of Woodworking Machinery in Canada

Canada Machinery Corporation Limited

GALT, ONTARIO

$3.00

Will rent a

Light Touch Monarch

for one month.

$15.00

Will rent a

Light Touch Monarch

for six months.

Sold EASY PAYMENT Plan

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Mailed upon request

Monarch Department

Remington Typewriter Company
(Limited)

144 Bay Street - - Toronto, Ont.

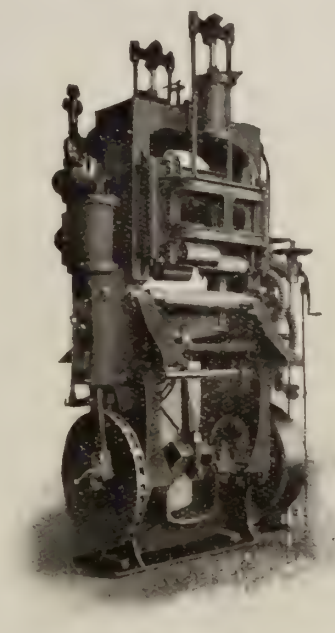
WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips **Cedar Siding** **Shiplap**
Silo Stock **Door Stock** **Box Lumber**
Boards

from cants and flitches, from either hard or soft woods.



ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES —taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install economy by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

Think it Over Carefully, then Write us for Details.

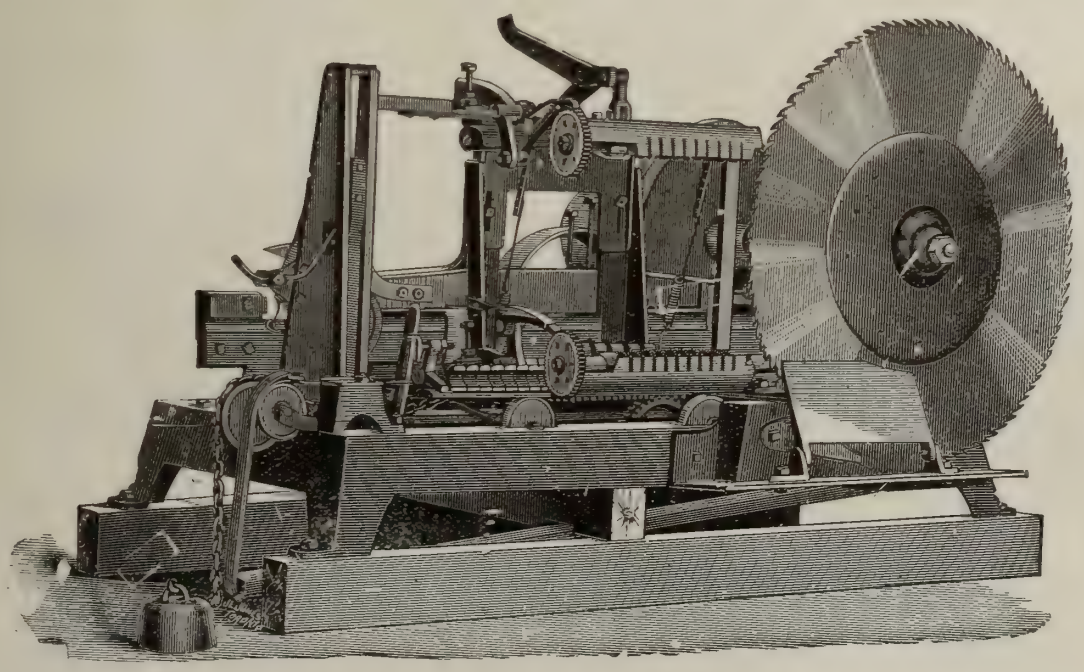
"The Gang cannot Overslab."

Wickes Brothers

410 White Building - - SEATTLE, WASH.

Head Office. Saginaw, Michigan, U. S. A.

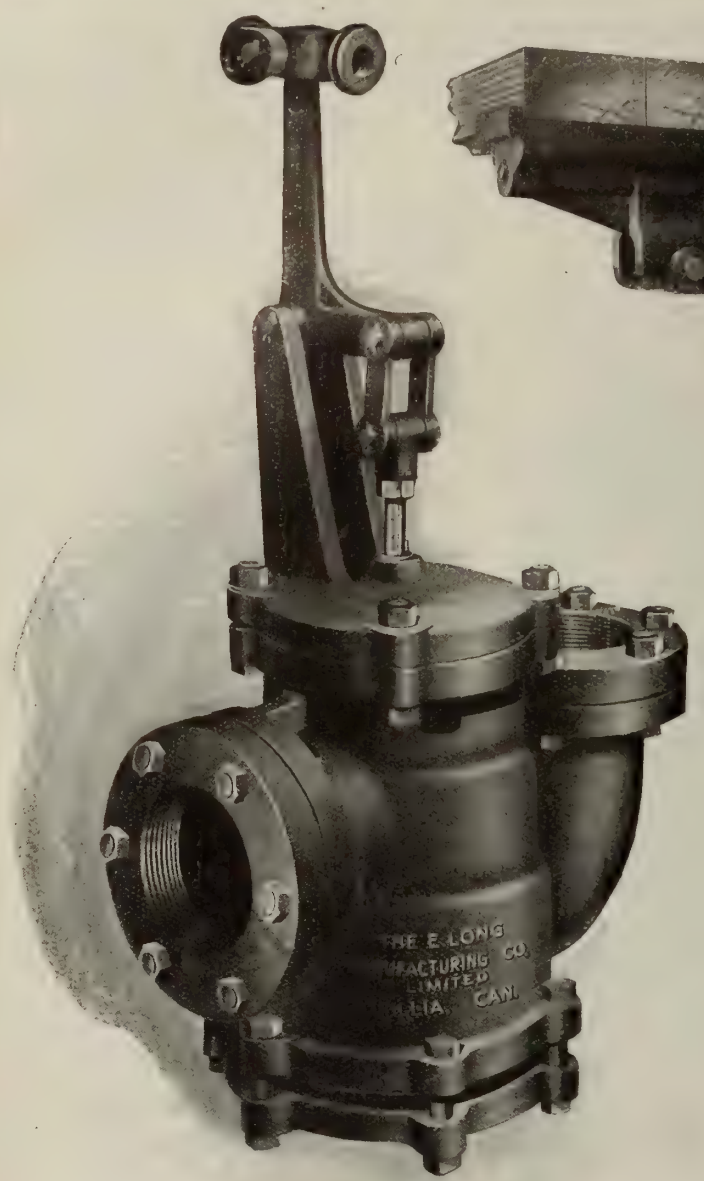
Mowry's Boss Shingle Machine



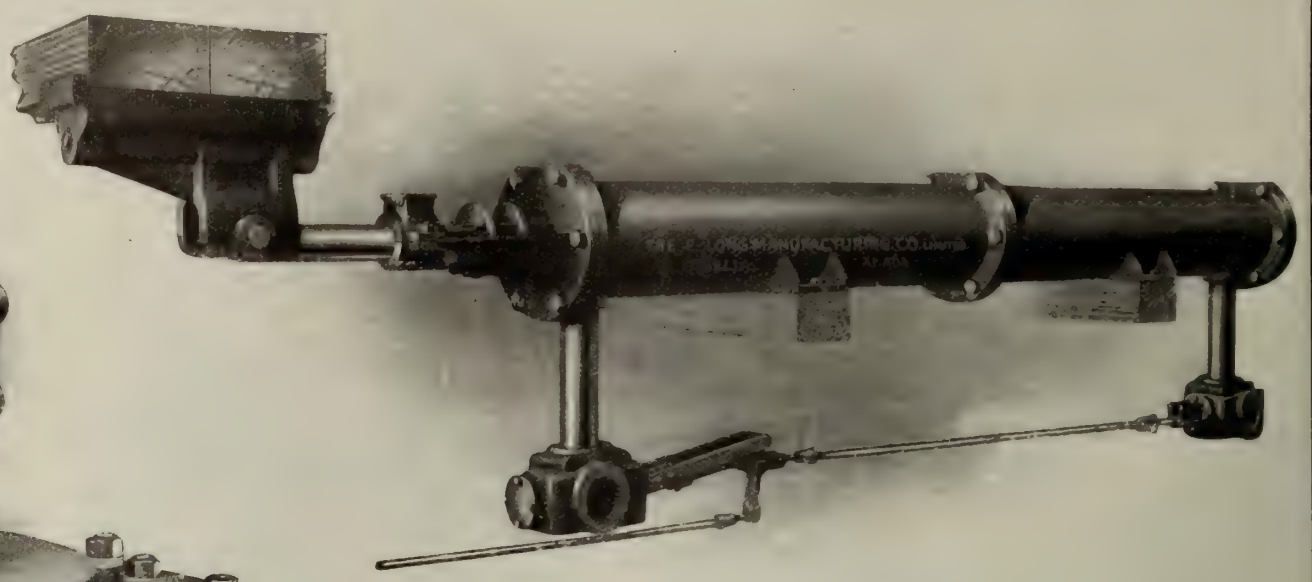
THIS MACHINE IS ONE OF THE BEST SINGLE BLOCK SHINGLE MACHINES MADE IN CANADA. Wherever introduced it has taken the place of all other shingle block machines. It is perfectly automatic in its action. The stroke is never longer than the cut, thus saving an immense amount of time, and by the touch of a lever the operator can make the machine butt all at one end, so as to bring the knots all at the thin edge. A patent brake relieves the machine of all jar when the carriage is stopped to change blocks. It has a powerful friction feed. It is altogether the simplest in construction of any machine built and combines so many advantages that it is far superior to any machine on the market. We build shingle machines both horizontal and vertical. SIMPLE. CHEAP. DURABLE. If you want a good shingle machine try the "Boss" and you will be more than pleased. One 40 inch saw and one 24 inch collar with each machine.

We also Manufacture all kinds of High Grade Machinery for Saw and Shingle Mills. Write for Prices

MOWRY & SONS, Gravenhurst, Ontario



Vertical Steam-Feed Valve



Direct Acting "Shot Gun" Feed

Built in sections to make up any length feed required, with 8 in., 10 in., 11 in., 12 in., and 14 in. bore.

We fit our feeds with **any style of valves required.**

Our "Gun Shot" feeds are money makers wherever used.

FULL PARTICULARS ON APPLICATION

We guarantee that our Valves will not stick or kick. They are perfectly steam tight and are without exception the most economical valves manufactured.

We not only manufacture a complete line of steam feeds, but also a complete line of steam actuated machinery for saw mills of any capacity.

Double Model "D" Valve

The E. LONG MANUFACTURING CO., LIMITED, Orillia, Ont.

AGENCIES:

MONTREAL—Williams & Wilson, Ltd.
WINNIPEG—Stuart Machinery Co., Ltd.
EDMONTON and CALGARY—Gorman, Clancey & Grindley, Ltd.
VANCOUVER—Robert Hamilton & Co.

Some Pages from our Catalogues

Every One Worth Reading

Since 1907 we have been publishing a new series of catalogues. These accurately describe and illustrate the line of Sawmill Machinery we now build.

They are printed in bulletin form. Each is descriptive of one machine or one style of machine only.

Which of these Shall we send you?

BULLWHEELS
CHAINS AND ACCESSORIES
LOG DECK MACHINERY
MEDIUM CARRIAGES
HEAVY CARRIAGES
CIRCULAR SAW FRAMES
BAND MILLS
EDGERS
CIRCULAR RESAWS
LATHMILLS AND BOLTERS
PLANERS AND MATCHERS
PORTABLE SAWMILLS
LIGHT CENTRE CRANK ENGINES
HEAVY SAWMILL ENGINES
McEWEN ENGINES
STEEL PLATE WORK

Mark with a cross the bulletins in this list you would like sent, or if you would like the complete set in the special binder cross out the lot and attach this sheet to your letterhead and send it to us. Do it to-day.

In this way you receive a bulletin that is easily handled or filed for reference. It describes only the machine you are interested in and this in a detailed way impossible in a general catalogue.

As our machines have changed in design to keep pace with changing sawmill conditions our bulletins have been printed to describe them. They illustrate our latest improvement in every line and are absolutely up to the minute.

In them we have endeavored to avoid exaggeration of any kind. The information they contain is accurate and trustworthy. Much of it is invaluable to the up-to-date mill man.

If you have any of our old catalogues on file destroy them now and ask us to send you our *latest* Sawmill Bulletins. A list of these is attached. We will send you individual copies or the complete set assembled in a handsome binder, just as you prefer.

Tear out this sheet and attach it to your letter head. We will do the rest.

The
Waterous Engine Works Co.
Limited

Brantford, Canada

Agencies: VANCOUVER, B. C.
WINNIPEG, MAN.
VALPARAISO, CHILI
BRISBANE, AUSTRALIA

$5,000,000.00

worth of mixed metals is what we market every year

PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.

Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

We solicit your patronage

HOYT METAL CO., Toronto, Canada

New York, N. Y. London, England St. Louis, Mo.

BATTS LIMITED

WEST TORONTO

MANUFACTURERS OF

Staved Columns
Veneered Doors
Newel Posts
Sashes - Flooring
Trim
Pine Doors and Frames
Turned Newel Posts and Balusters
Cypress Greenhouse Material

BATTS LIMITED

MANUFACTURERS

WEST TORONTO, ONT.

THE LEATHER BELT THAT'S KNOWN OUR "EXTRA"

THE J.C. McLAREN BELTING CO. OAK EXTRA TANNED EST 1856

MONTREAL TORONTO
WINNIPEG VANCOUVER

The J.C. McLaren Belting Co.
Limited

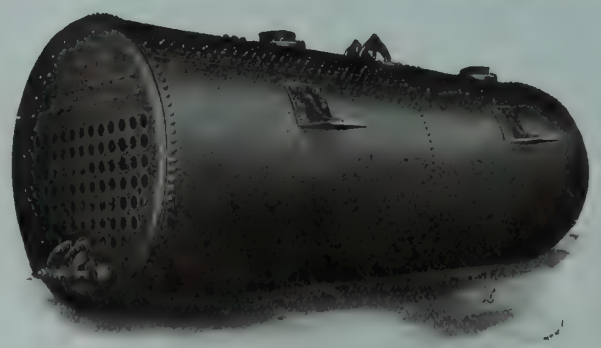
General Mill Supplies MONTREAL

The John Inglis Company, Limited

Engineers & Boiler Makers

"Inglis" Boilers are the Best

Write us for quotations



BOILERS

We Make

Return Tubular, Scotch Marine, Fitzgibbon, Scotch Dryback, Locomotive, Water Tube.

14 Strachan Ave. **Toronto, Canada**

Canada Lumberman & Wood Worker

Time is Money

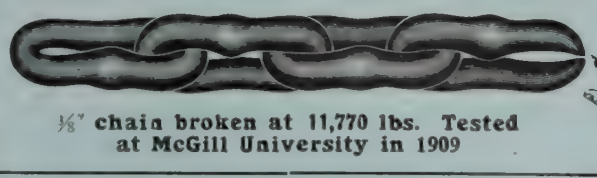
The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.



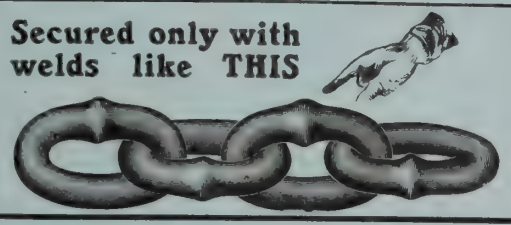
A Test Like THIS

⅛" chain broken at 11,770 lbs. Tested at McGill University in 1909

25% More Weld = 25% More Strength = 25% More Wear

Tested Steel Chain made at **St. Catharines, Ont.**
Sold by
McKinnon Chain Co.
BUFFALO, N.Y.

Secured only with welds like THIS



NO FRAYING AT THE EDGES

Dick's Balata Belting possesses perfect uniformity throughout, whereby true and steady running is ensured, fraying at the edges rendered impossible, and perfect success in fork driving guaranteed. The combination of strength and uniformity in Dick's Belts is due to the process of solutioniz rg to which the textile portion of the Belting is subjected, and which thoroughly solidifies and unites the whole material. You can get all the facts in our Catalog No. 17.

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
Steel Pulleys Saw Mill Supplies Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults
Montreal Toronto St. John, N. B. Winnipeg Calgary Vancouver 5

F. REDDAWAY & COMPANY

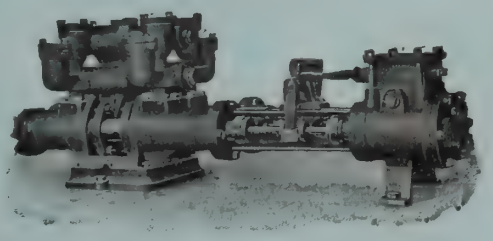
SOLE MAKERS OF

"CAMEL HAIR" "CAMEL" BRAND TRADE MARK REG. BELTING

STITCHED CANVAS BELTING
THE "CAMELATA" BELTING REGISTERED **LINEN FIRE HOSE**

WRITE FOR BOOKLET

TORONTO **MONTREAL**



We Manufacture
Steam and Power Pumps, Condensers, Travelling Cranes, Etc.

The Smart-Turner Machine Co., Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

Alphabetical Index to Advertisers, page 60

The Steam Tension Band Mill

The steam tension band mill as we make it is entirely different from any other band mill made. Owing to the great success of this mill, many other manufacturers have added steam cylinders to their **standard** mills for operating the top guide and for raising and lowering the top wheel. Of course, these devices at their best are not all they ought to be, but the fact of their being there serves to emphasize the worth of the steam operated mill. Ours is the only band mill which has been **specially** designed from the beginning as a steam tension mill, and consequently the steam cylinders are placed where they should be, and work properly at all times, no matter what your boiler pressure or your sawing conditions.

The advantages of this mill are obvious—the time saved by having **both** the top guide and the upper wheel operated by steam is very considerable, while with our very sensitive steam tension, the saws are easily kept at exactly the right tension to cut perfect lumber, to say nothing of the longer life of the saws.

It costs you a little more to buy this mill because it costs us more to make it, but it saves you far more than the difference in cost in a very short time, and so it is worth more.

Built with 8 foot, 9 foot and 10 foot wheels.

May we send you our catalogue?

William Hamilton Co., Limited

PETERBOROUGH, ONTARIO

VIEW OF OUR MILL AND BOOMS

PINE LUMBER

Cut from the best pine timber in Ontario is what we have to offer our many patrons in Canada and the United States.

We don't want to dissapoint you therefore anticipate your requirements as far ahead as possible for

Norway or White Pine Lumber, Railroad and Structural Timbers, Flooring, Ceiling, Moulding, Siding, Cross-arms, etc.

Place your order now for next year's dimension stock

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Dry Lumber For Sale

View of Saw Mills, Pembroke, Ont.

White and Red Pine, Spruce, etc.

100,000 ft.	5 4 x 4 7	x 12/16	S.C.W.P.
200,000 ft.	6 4 x 4/7	x 12/16	" "
100,000 ft.	1 x 8 & up	x 12/16	" "
100,000 ft.	5 4 x 8 & up	x 12/16	" "
200,000 ft.	6 4 x 8 & up	x 12/16	" "
200,000 ft.	2 x 8 & up	x 12/16	" "

(All Box Out)

ROUGH OR DRESSED

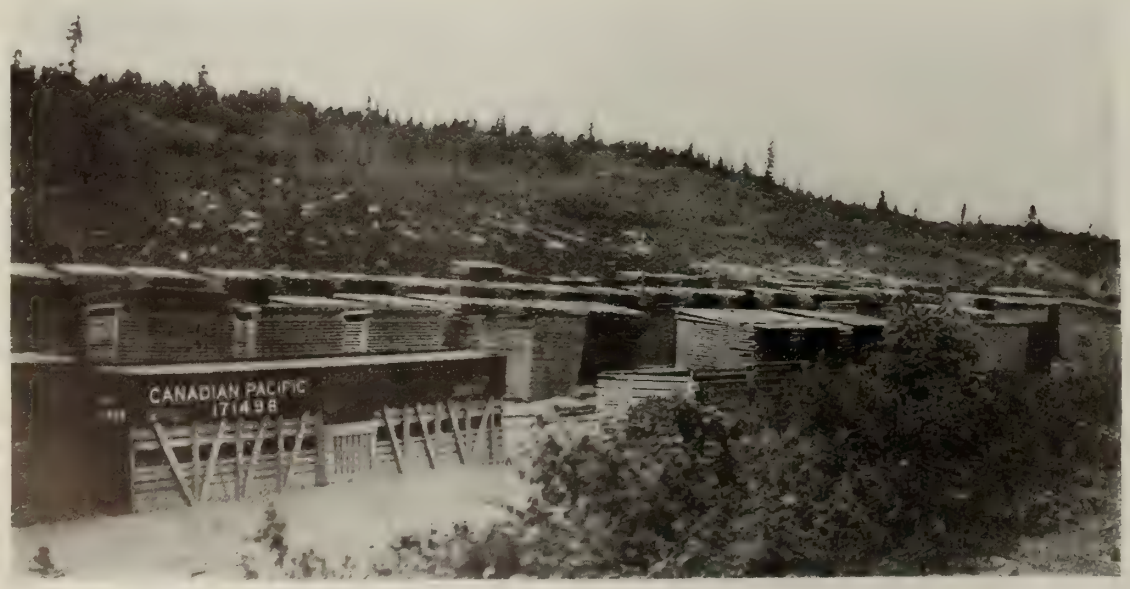
Fast Feed Planing Mill in Connection.

Send us your enquiries

The Colonial Lumber Co., Ltd.

Pembroke, Ont.

WHITE AND RED PINE



SCENE IN THE SHIPPING YARDS

"Pine that's Pine"

That's the kind of stock your customers want — high grade. That's the kind you get when you buy at Lumsden's Mills.

Quality and Capacity

The very highest grade stock that the choicest timber and modern methods of manufacture can produce, with every facility for quick shipment.

Write us your requirements

JOHN LUMSDEN, Lumsden's Mills, Quebec

There's Satisfaction in Ordering These Quality Grades of Lumber

Norway Pine

Cedar Shingles

Spruce Lath

Right now we are ready to supply your every demand—at lowest market prices, in

HEMLOCK 1 x 4 and up, 1 x 6, 1 x 8, 1 x 10, 2 x 6, 2 x 8, 2 x 10

SPRUCE 1 x 4, 1 x 5, 1 x 6, 1 x 7, 1 x 8, 1 x 9 and 1 x 10

We can also fill orders, in any quantity, of **White Pine**—the finest well-watered stock obtainable. Always ready for shipment. We can dress or resaw.

☞ *Write for prices, etc.* ☜

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 1200 Claremont Ave., MONTCLAIR, N.J.

Hope Chambers, OTTAWA, CAN., Head Office

Timber Limits for Sale on Georgian Bay

The undersigned offer for sale in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; Tug Scow and other Lumber Equipment, including boom chains, plows, sleighs, etc.

The Limits, part of which have recently been sold, include: 440 square miles of licensed and deeded Pine, Hemlock, Spruce, Birch and other timber. The licenses from the Ontario Government include all timbers and are not restricted for time. Government dues are as follows: Saw Logs, White Pine, $1.50 per M. ft., B.M. Saw Logs, Hemlock, Tamarac and other woods 75c. per M. ft. The timber is situated in the Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street. The Canadian Pacific, Canadian Northern and Grand Trunk Railways run through the limits, which makes some of the parcels offered for sale particularly desirable for small mill owners.

A circular giving full information, maps, terms and conditions of sale will be furnished upon application to

The Parry Sound Lumber Co., Limited

1315-20 Traders Bank Building, TORONTO, CANADA

Quincy Adams Lumber Co., Limited

MANUFACTURERS AND WHOLESALERS OF

White Pine, Birch, Spruce and Hemlock

Mills at
LONGFORD
KOSHEE
RAVENSWORTH

P. S. Special Price on Dry 4/4 and 5/4 good W. Pine Strips and Sides.

Toronto, Canada
51 Yonge Street

The Rideau Lumber Co., Limited

Trafalgar Building, Ottawa, Ont.

We offer the following, of 1911 Sawing

Quality—**Dressing and Factory**

2 cars	5/4 x 4 and up	—	6/11 ft.	Average 7	in.	wide
1 "	6/4 x "	—	"	" 7½	in.	"
4 "	8/4 x "	—	"	" 8½	in.	"
2 "	5/4 x 7 "	—	12/16 ft.	" 9	in.	"
2 "	6/4 x "	—	"	" 9½	in.	"
5 "	8/4 x "	—	"	" 9½	in.	"

Quality—**Red Knot Dressing**

6 cars	6/4 x 8 and up	—	12/16 ft.	largely 8	in.
8 "	8/4 x "	—	"	"	"

JAS. PLAYFAIR D. L. WHITE

PLAYFAIR & WHITE

Manufacturers and
Wholesale Dealers

Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

Knowles & O'Neill

WHOLESALE

Lumber, Ties, Pulpwood

Etc.

COMPLETE STOCK OF
Quebec Spruce and Pine Lumber
ALWAYS ON HAND

An exceptionally nice lot of 2" Pine, well seasoned, for sale, also 1", 2", 3" Spruce, Square and Waney Spruce and Cedar.

Correspondence Solicited. Room 4, Hochelaga Bank Building **Quebec, Que.**

The Golden Lake Lumber Co.

Limited

MANUFACTURERS OF

Lumber, Lath and Shingles

Offer at LOW FIGURE for QUICK sale:

80,000′ 2 x 4 & up 6/16′ No. 1 White Pine Mill Cull
20,000′ 2 x 4 & up 6/16′ No. 2 White Pine Mill Cull
18,000′ 1 x 4 & up 6/16′ Log Run, Dead Culls out White Birch
125,000 pcs. 1½ x ⅜ x 32″ Mill Run Hemlock Lath

All of above, shipment G. T. R. from Golden Lake, Ontario

Head Office: - EGANVILLE, ONT.

THE trend of trade is now towards our **CUTLER** Mills, when customers want anything at **BAY** ports for water or rail delivery, and our **LUMBER** is selling itself by repeat orders from any **COMPANY** to whom we make a shipment. Our stock is **LIMITED** but we still have a goodly quantity to dispose of at prices worth while considering.

DON'T BUY TILL
YOU GET OUR
PRICES

The Eyer Lumber Co.

34 Victoria Street, Toronto
are Selling Agents

Cameron & Co, Limited

Manufacturers

LUMBER, LATH, SHINGLES, TIMBER, POLES and POSTS

We have for quick shipment

Hemlock Ties

Mill and Yard
OPEONGO, ONT.

Head Office
OTTAWA, ONT.

Send your enquiries to our Head Office

The McLennan Lumber Co., Limited

Everything in Lumber
Rough and Dressed
Wholesale and Retail

WRITE US FOR PARTICULARS

21 Dorchester Street West, MONTREAL, QUE.

The Hurdman Lumber Co.

OTTAWA, CANADA Limited

EASTERN

Pine, Spruce, Hemlock, Hardwoods, Timber, Lath and Shingles

WESTERN

British Columbia Timber

at Lowest Prices and any Sizes.

We are open to BUY cuts of Pine; Spruce; Hemlock; Basswood and Ash; and will be pleased to hear from manufacturers having anything to dispose of for cash, will also make contracts now for Basswood to be taken out this winter.

Pine, Spruce, Hemlock, Lath, Birch, Maple

Good Stocks. Prompt Shipments.

INQUIRE OF

C. A. SPENCER

Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles

Eastern Townships Bank Building, MONTREAL, Quebec

Toronto Representative: A. T. Dadson, 42 Duggan Ave.

Williams Lumber Company

Wholesale Dealers in

White and Red Pine, Spruce and Lath
ROUGH OR DRESSED

For 5, 6, and 8/4 shipping cull stock strips, box out.
For 5, 6, and 8/4 fine dressing strips.
For 5, 6, and 8/4 x 4 and up shipping cull shorts.
For 5, 6, and 8/4 x 8 and up shipping cull sidings, 10 in avge.

Write us before placing your orders

18 CENTRAL CHAMBERS - OTTAWA, ONT.

Edward Hines Lumber Co.

(BRANCH OFFICE)

Parry Sound, Ont.

All grades of

WHITE PINE

and

Norway Dimension Bill Stuffs

WHITE and RED PINE LATH

WILLIAM H. BROMLEY

Wholesale Lumber

Aux Sable River Forest Reserve Timber Produces Best Lumber in Ontario.

Every lumber dealer and consumer in Western Ontario, Buffalo, Detroit, Central New York and Montreal knows what excellent lumber is produced from Playfair & White's mills at Midland, Ont. I can offer you from that point, all sizes of White Pine and Norway Pine; any quantity of the choicest lumber in the Georgian Bay district. These mills will commence sawing about May 15th.

SPECIAL:—The best block of Basswood in Ontario. estimated 2,000,000 ft. I am prepared to offer, sawn to any size required.

Other stocks of Pine, Hemlock and Spruce at Pembroke, Ottawa and Collingwood.

Quotations promptly given and enquiries solicited

Pembroke - - Ontario

ESTABLISHED 1855

THE McGIBBON LUMBER CO.

OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

JOHN MCKERGOW, President — W. K. GRAFFTEY, Managing-Director

The Montreal Lumber Co. Limited

Wholesale Lumber

Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W

WHOLESALE DEALERS

SPRUCE

13 Foot and 16 Foot

Lath and White Cedar Shingles

CHRISTY-MOIR CO.

149 Broadway, New York City

THE

Brockville Lumber Company

LIMITED

Brockville, Ont.

Morristown, N.Y.

Wholesale and Retail

Lumber, Lath, Shingles, Bill Stuff

And all kinds of SASH FACTORY and PLANING MILL GOODS.

McLennan Timber Lands and Lumber Co. Limited

Selling Agency and Dealers in all kinds of

Timber Lands

Offices: Gazetteville, N.Y.
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RAILS For Tramways, Sidings, Etc. New and Second Hand

YARD LOCOMOTIVES

John J. Gartshore

58 Front St. W., TORONTO

Hardwood Flooring

The Celebrated Diamond Brand

End Matched, Bored, Polished and Bundled

Manufactured by

SIEMON BROS., LTD.

For prices write

W. T. EAGEN

Selling Agent for Ontario and Quebec

203-4 McKinnon Bldg.

Phone M. 6316 TORONTO

Pine Doors

That Are Right

Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

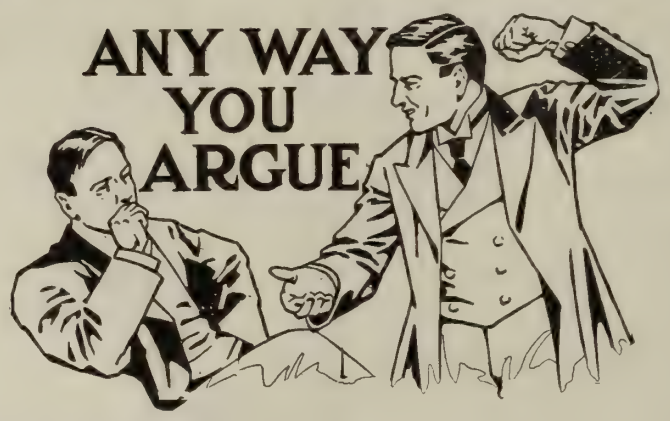
We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

No. 3 Pine Doors

THE

Pembroke Lumber Co.

Pembroke, Ontario



The only goods of any use to the wise business man are the goods that SELL RIGHT.

You might make profit on any sort of goods at all, but it is the goods that SELL RIGHT that build up your business.

OUR

HEMLOCK, PINE and HARDWOOD

SELLS RIGHT

because it is made from the right kind of timber, is graded right, and is sold at the right price. We dress and size all our Hemlock Lumber—we help you to save on your freight—you know what that means.

We specialize in car lots— Write us your requirements

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

The Harris Tie & Timber Co.,

198 Sparks St., Ottawa, Ont.

Cedar Poles and Posts, Piles and Bridge Timber

Track and Switch Ties

The

North Channel Lumber Co.

Limited

Successors to

SAGINAW LUMBER & SALT CO.

MANUFACTURERS OF

Pine Lumber

Saginaw, Mich. U.S.A.

Mills at Thessalon Ont.

We Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

AUGER & SON

QUEBEC

HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.

NIACARA FALLS, N.Y.

The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

Orillia, Ont.

R. LAIDLAW LUMBER CO.

LIMITED

Toronto

Sarnia

Buffalo

Imperial Timber & Trading Co.
LIMITED
VANCOUVER, B.C.
Branch Office:
15 Cadogan Block,
CALGARY, ALTA.

Every Description of
DOUGLAS FIR,
RED CEDAR, SPRUCE,
HEMLOCK, LARCH and
PINE LUMBER and
RED CEDAR SHINGLES

Heavy Construction Timbers a Specialty
Lengths up to 110 ft.
Try a car of our Extra Quality XXX RED CEDAR SHINGLES

Rail and Water Shipments.

CANADIAN OFFICE & SCHOOL FURNITURE
CO. LIMITED
PRESTON ONT.
FINE BANK OFFICE COURT HOUSE & DRUG STORE FITTINGS.
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

WANTED
100 m ft. clear hard Maple axles 4 in. x 5 in.-6ft. and 12 ft. long. Also all thicknesses Common and Better Birch.

For Sale
All grades and thicknesses of Cherry and Mahogany lumber. Also Mahogany, Circassian Walnut and Quartered White Oak veneer all thicknesses. Please let us hear from you.

WARREN ROSS LUMBER CO.
Jamestown, N. Y.

SPECIALTIES
Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie
Pine and Hardwood
Lumber
Lath and Shingles
North Tonawanda, N. Y.

"Well Bought is Half Sold"

SPECIAL STOCK OFFER

5 Cars 1" M. R.	Red Pine
5 " 1" C. & C. F.	"
3 " 6 4 "	"
1 Car 2' "	"
4 Cars 2 x 6 8-18'	"
2 " 2 x 10-18'	"
2 " 1 x 8"	No. 1 Spruce
½ Car 1 x 10 12	" "
½ " 5 4 x 8" Sel. M. R.	W. Pine
½ " 2 x 8 " "	"

Above all in shipping condition F.O.B. Midland.

Let us have the pleasure of quoting.

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine and Hemlock Lumber

730 Traders Bank Building, Toronto, Ont.

Mills: Byng Inlet, Ont.

We are Buyers of
Hardwood Lumber
Pine and Spruce
Veneers (3 or more ply) Handles (all descriptions)
Staves Hoops Headings
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Bootle, Liverpool, England
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Smith & Tyrer Ltd.
Agents for Shippers of
SPRUCE, PINE, HARDWOODS AND OTHER WOOD GOODS.
Please Offer Stocks on hand.
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WOOD BROKERS and MEASURERS
2 Dale Street, Liverpool, and Seaforth Road, Seaforth Liverpool England

Saddle Tank Locomotives
Geared Locomotives
Steel Rails
Flat Cars
All Secondhand
Correspondence solicited
SESSENWEIN BROS.
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Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office: — Pacific Building, VANCOUVER, B. C.**

Long Lumber Company

Head Office
Hamilton, Ontario

Branch Office
Traders Bank Building
Toronto, Ont.

IN GOOD SHIPPING CONDITION, AT PARRY SOUND

150,000 ft.	2 x 4 — 10/16	Red Pine	
150,000 ft.	2 x 6 — 10/16	"	
150,000 ft.	4 x 4 — 10/16	"	
150,000 ft.	1 x 4 - 10/16	"	Flooring Strips

4 cars No. 1 W. Pine Lath
3 " 2 " " } 8½c. rate to Buffalo.
3 " 3 " "

WRITE FOR PRICES

Wm. Milne & Son, Ltd.

Manufacturers:

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.
Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

Spanish Mill

White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel shipment only.

THE
M. BRENNEN & SONS MFG. CO.
HAMILTON, ONT.

MATCHING, DRESSING AND RE-SAWING

done in transit at lowest prices. We are equipped to dress and bore heavy Georgia Pine Timbers.

Casey-Shaw Lumber Co. Limited

Sudbury, Ontario

Manufacturers of

Lumber and Lath

Planing Mill Work

SAW MILLS
Long Lake, Ont. and Blezard, Ont.

GENERAL OFFICE
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Lumber Wanted

We want 1" Crating Spruce and 1" Elm Crating. Write us telling what you have to offer.

The Glengarry Lumber Co., Limited
Berlin, Ontario

TORONTO WHOLESALERS

Full Stock Dry Pine and Hemlock

BILLS IN PINE AND HEMLOCK

Cut to Order

NEW TELEPHONE ADELAIDE 1783

The Fesserton Timber Co., Limited

15 Toronto St., TORONTO

Mills at FESSERTON, ONT.

JOHN DONOGH & CO.

Wholesale Dealers

Hemlock **Spruce**
White Pine **Red Pine**

Full stock in all grades and sizes

B.C. Cedar Shingles - N.B. Cedar Shingles

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1205 TRADERS BANK BUILDING, TORONTO

C. A. Larkin Lumber Co.

Limited

We have an exceptionally well assorted stock of Dry White Pine, but wish to call particular attention to our select Mill Run 5/4" x 4, 5, 6, 8 & 10" and 6/4 x 10."

If you want silo stock, we have it; 2 x 4, 2 x 6, 2 x 8, & 2 x 10 10/16 Mill Run Norway.

Toronto :: Canada

Do You Want a Salesman?

¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

LEAK & CO., LIMITED

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We are in the market for Hemlock, Spruce and Hardwoods, also No. 1, 2 3 Lath.

Send us list of anything you have to offer.

Spears & Lauder

OFFER

One Million feet, Birch, Basswood, Ash, Elm and Maple

now being cut from exceptionally choice logs.

Also during the Summer months 2½ million feet of hemlock.

LET US QUOTE YOU ON YOUR REQUIREMENTS.

Head Office: 501 Kent Bldg., - TORONTO

The

Elgie & Jarvis Lumber Co.

Limited

18 Toronto Street, Toronto, Ont.

We are in the market for

Stocks of

Hemlock Lumber

For quick sale High Class Stock of **Pine, Spruce, Birch, Maple, Ash, Cypress.**

Send us your inquiries. Stock and price right.

Special:—

3" Spruce	8/10
3" Soft Elm	"
1" Black Ash	"

C. G. ANDERSON LUMBER CO.

Manning Chambers, TORONTO

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Established
1873

GILLIES BROS.
Limited

Mills & Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

Cedar Shingles and
Railway Ties

RED PINE, SPRUCE, HEMLOCK, CEDAR

Planing Mill, Yard & Office
MORRISTOWN, N.Y.

CAPACITY 40,000,000

New York City
Guy E. Robinson, 1123 Broadway

The

Georgian Bay Lumber Co.

Limited

Waubaushene, Ontario

Manufacturers of High Grade

Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

White Pine
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Spruce
Lumber and Lath

Office, Castle Building 53 Queen St. Ottawa, Can.

F. N. WALDIE, President. R. S. WALDIE, Vice-President. W. E. HARPER, Secretary.

The
Victoria Harbor Lumber Company
Limited

Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont. Head Office, 12-14 Wellington Street East, TORONTO, ONT.

Modern Methods Do It All

Pine
Hemlock
Spruce
Hard-
woods
Rough
and
Dressed

We
make
a
Specialty
of
Long
Timbers

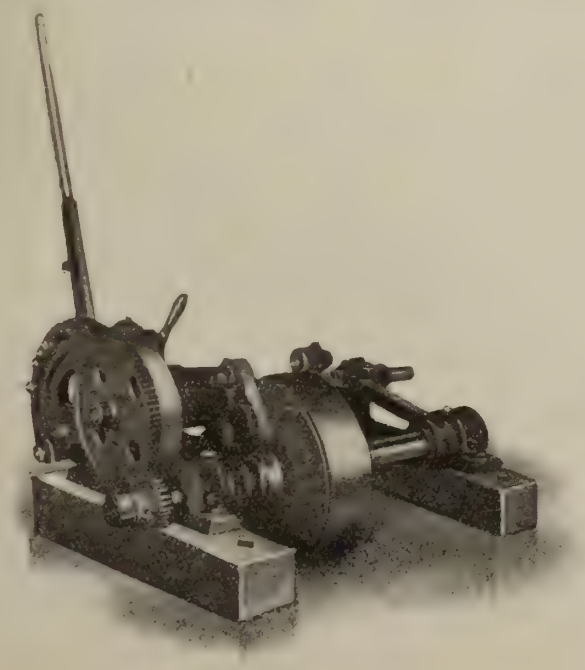
Fassett Lumber Co.—Loading Logs on Cars for the Mill

Fassett Lumber Company, Limited

FASSETT, QUEBEC

The Importance of Efficient Mill Machinery

In Millwork, where every portion of the equipment has to undergo the severest treatment with unusually hard conditions only the best machinery will serve. No mill can be run at a profit with inferior equipment. This is an expression of the opinion of men of wide and varied experience in the business.



P. Payette's Improved Mill Machinery, is built to stand all the strain and hard usage of mill work. This machinery is of the special Payette design and embodies many improvements, which add considerably to the efficiency of mill equipment.

The New Patent Saw Mill Dog which operates in soft or hardwood timber of any kind will do good even work in summer or winter with perfect safety.

Payette's Improved Set Works will set even thickness of lumber in all class of timber and will set any size log with perfect ease, Can be changed instantly so as to make either thick or thin lumber and can be put on any make of carriage.

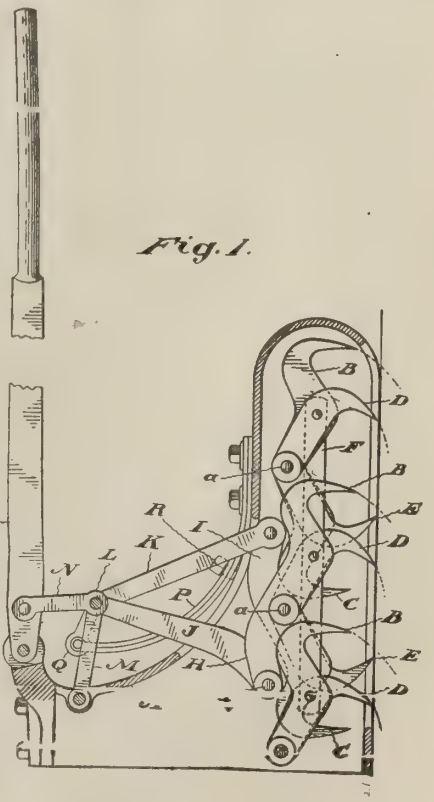


Fig. 1.

We want to prove to you the advantage of this set works in your mill and we are prepared to demonstrate its efficiency and superiority. Full information sent on application. Ask for our booklet on set works.

P. Payette & Co. Engineers & Machinists Penetanguishene, Ont.

FOR QUICK SHIPMENT

We offer the following stock, subject to prior sale—All Dry Stock:

A few cars left of:

5/4 x 6/8/10 No. 1 and 2, Barn
6/4 x 6/8/10 No. 1 and 2, Barn
200M 1", 1½" and 2" x 12—12/16 Spruce
100M 3 x 10—10/16 Spruce
1" x 4", 5" and 6" No. 1 and 2, Barn
1½" x 4", 6" 8" x 10" No. 2, Barn and Better

From Small Logs

1", 1¼ and 2 x 4,—10/16' Spruce, rough or dressed
" " 2 x 5, " " "
" " 2 x 6, " " "
" " 2 x 7, " " "
" " 2 x 8, " " "

1", 1¼ and 2 x 10,—10 16' Spruce, rough or dressed
" " 2 x 12, " " "

A choice lot of 1" Ash and winter sawn 1" Basswood; also Birch Flooring in all grades and thicknesses.

1 x 4/up, 6/11' Mill Run Hemlock, Mill Culls out.
1 x 4/5", 12/16' " " " " " "
1 x 4/6", 12/16' " " " " " "
2 x 4/up, 12/16' " " " " " "

2 x 6, 7, 9 & 11", 12/16' Mill Run Hemlock, Mill Culls Out
3 x 8, 10 & 12", 12/16' " " " " "
Also Log Run Hemlock, Dead Culls out.
Scant 2 x 6, 8 and 10", 6/16'

Send us your inquiries. We can supply you all your wants in Pine.

DRESSED LUMBER OUR SPECIALTY

Write, wire or 'phone us for prices before placing your orders.

W. C. Edwards & Co., Limited

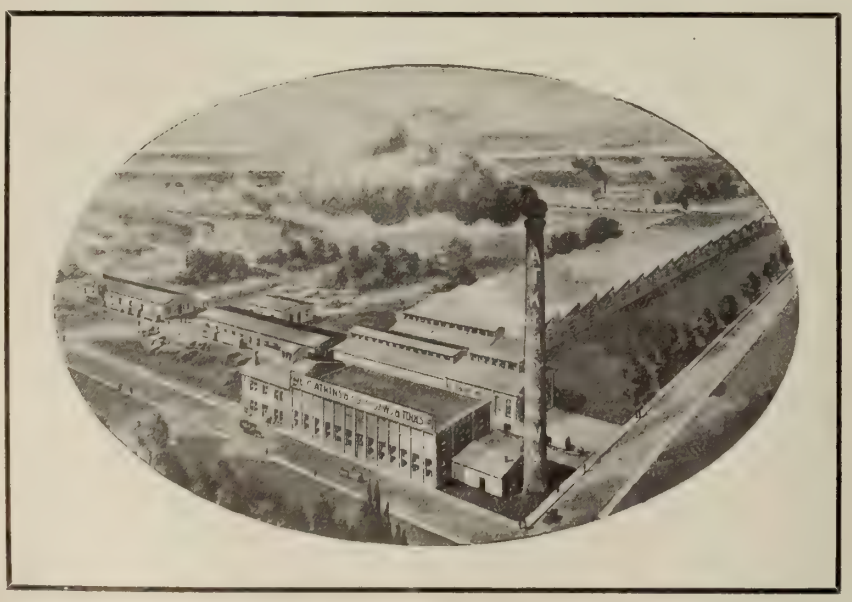
Ottawa, Ont.

Mills at Ottawa and Rockland **Planing Mills and Factories at Ottawa**

"EVERYTHING IN LUMBER"

ATKINS STERLING SAWS

Made in Canada



Band,

Circular,

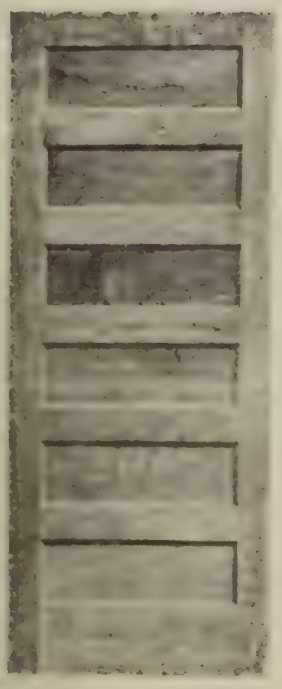
Cross Cut

A Perfect Saw for Every Purpose

E. C. ATKINS & CO., Makers of STERLING SAWS Factory, HAMILTON, ONT.

Vancouver Branch, 109 Powell Street

Dealers Looking for BIG PROFITS and High Grade Quality Doors



cannot afford to overlook the advantages of buying in carload lots when you are assured regular mill run stock of the quality and workmanship we offer. This is particularly true of the special offer we are making right now on carload lots.

WE ARE THE

Biggest Manufacturers of Doors in Canada

A DOOR A MINUTE IS OUR CAPACITY

GET BUSY AND INVESTIGATE

Estate James Davidson - Ottawa, Ontario

GARLOCK PACKINGS

Garlock Regular Rings

For all general purposes outside of high pressure work. This Packing is a special grade thoroughly lubricated with the celebrated "Garlock" compound, and is the perfected result of over thirty years experience in manufacturing fibrous Packings.

Garlock Square Duck Packing

Made of good quality Cotton Duck and friction for cold water.

Garlock High Pressure Gaskets

Absolutely heat proof, will not vulcanize or blow out under any steam pressure, being made of long fibre Asbestos Brass Wire Insertion.

Garlock Red Sheet Packing

Made of high grade Rubber compounded in such a way as to give it great strength and reliability.

This Packing has established wide reputation on its own merits.

Garlock Cloth Insertion Sheet

Used on cold and warm water pipes. Is unexcelled in pliability, smoothness of finish and strength of Cloth Insertion.

Garlock Rubber Valves

Specially made to meet specific conditions—absolutely unaffected by oils.

Before placing your next order for supplies get our prices on Leather, Rubber and Canvas Belts, Hose, Brass Valves, Babbitt Metals, Saw Blades, Files, Emery Wheels, etc. Write for catalogue.

THE GARLOCK PACKING CO.

Head Office and Factory: HAMILTON, ONT.

MONTREAL TORONTO WINNIPEG

MARITIME PROVINCES

Maritime Lumber Co.
Limited

Head Office: Saint John, N. B.

Branch Office: 180 St. James St. Montreal, P. Q

OFFER FOR IMMEDIATE SHIPMENT THE FOLLOWING WHITE PINE

500,000 ft. 1 x 6 to 1 x 12 White Pine
1sts, 2nds and 3rds

500,000 ft. 1½ x 7 to 1½ x 12 "
1sts, 2nds and 3rds

500,000 ft. 2 x 7 to 2 x 12 "
1sts, 2nds and 3rds

500,000 ft. 3 x 7 to 3 x 12 "
1sts, 2nds and 3rds

300,000 ft. 3 x 4, 5 and 6 "
1sts, 2nds and 3rds

The above Pine is last year's cut, 1st, 2nd and 3rd Quality

Donald Fraser & Sons, Limited

CABANO, QUEBEC

MANUFACTURERS OF

Long Lumber

Rough and Finished

Shingles, Clapboard, etc.

To Reach More Lumber Buyers

Canadian lumber manufacturers and wholesalers should advertise regularly and prominently in the

Canada Lumberman & Wood Worker

This paper reaches all the principal buyers of Canadian lumber at home and in Great Britain, United States, Europe, South America.

Rates on application to the head office.

220 King Street West
TORONTO - ONTARIO

High Grade
N. B. Cedar Shingles

Spruce and Pine Lumber Lath
Rossed Pulpwood

Dalhousie Lumber Co., Limited
Dalhousie, New Brunswick

Agents for Ontario . Laidlaw Lumber Co., Limited
Toronto, Ontario

Selling Mill Stock

If you desire to get beyond the retail dealer and reach the builder and the architect it will pay you to advertise in the

Contract Record
and Engineering Review

the only weekly paper in Canada for builders, architects, etc.

Send for sample copies and rates to the publishers

Hugh C. MacLean, Limited
Toronto, Ontario

Bathurst Lumber Co., Ltd.

Bathurst, N. B.

Two modern saw mills equipped with the latest improved machinery enable us to carry always in stock a large assortment of Dry White Pine and Spruce.

Located on Bathurst Harbour for Water Shipment and on the Main Line Intercolonial Railway for Rail Shipment, we can

Reach Any Market in the World

Possessing the best standing timber in the Maritime Provinces we are able at all times to supply lumber of uniform high quality and strictly up to grade.

Stock Now Ready for Shipment

Clear and No. 1 Spruce

100M 1x4″ and up, fine stock, good widths
50M 1¼x4″ and up, fine stock, good widths
200M Scant 2x4″ and up, fine stock, good "

Merchantable Spruce

100M 1¼x6x10 ft. and up
200M 1¼x8x10 ft. and up
200M 1¼x9x10 ft. and up
50M 1¼x10x10 ft. and up
100M 1¼x5 and 7x10 ft. and up
1000M Scant 2x6x12 ft. and up
200M 2x8x12 ft. and up
300M 3x6x10 ft. and up
200M 3x8x10 ft. and up
100M 3x10x10 ft. and up

No. 3 Barn and Better Pine

5 Cars 1x6″, 10 ft. and up, nice lumber
5 Cars 1x8″x10 ft. and up, nice lumber
5 Cars 1x10x10 ft. and up, nice lumber
2 Cars 1x12x10 ft. and up, nice lumber
10 Cars 1x7″ and up, 10 ft. and up, nice lumber

Log Run Birch

150M 1¼x4″ and up, 6 ft. and up
75M 1½x4″ and up, 6 ft. and up
25M 2x4″ and up

Cedar Lath

3 Cars 1⅜x⅜x4 ft.

Write for our monthly stock list giving full particulars of our lumber ready for shipment

E. H. Heaps & Co., Ltd.

Lumber, Shingles, Doors, Mouldings, Finish, etc.

Specialties: AA1 BRAND HIGH GRADE SHINGLES
LONG FIR TIMBER

Mills at
Vancouver and Ruskin, B. C.

Head Office: 445 Hastings Street West
VANCOUVER, B.C.

The Fernie Lumber Company, Limited

FERNIE, B. C.

MANUFACTURERS OF AND DEALERS IN

Rough and Dressed Lumber

Tamarac, Spruce and Cedar

Fence Posts, Telephone and Telegraph Poles

Moulding in Stock or Made to Order

A. McDOUGALL, President

ASH BASSWOOD CHESTNUT CHERRY COTTONWOOD

BUCKEYE CYPRESS MAHOGANY

Need any Oak?
Need any Poplar?
Need any Chestnut?

OUR SPECIALTY—The supplying of high class lumber—at right prices.

Shipment direct from mill—good grades.

YOU CAN'T AFFORD to manufacture Oak Flooring when you can buy it—ready to lay—at our prices.

CAN MAKE PROMPT DELIVERIES

THE F. T. PEITCH CO.,

CLEVELAND, OHIO

GUM POPLAR SYCAMORE

PLAIN AND QUARTERED OAK YELLOW PINE

Pine

Selects
Shops
Commons
and
Mouldings

THE HALL MARK OF QUALITY

Larch

Timbers
Yard Stock
Clears
and
Mouldings

The East Kootenay Lumber Co. Limited

Head Office: JAFFRAY, B.C.
Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

For low prices and prompt shipment of

Yellow Pine Timbers
Short Leaf Finish
Chestnut --- Oak --- Ash
Cypress
New Brunswick Shingles

TRY

Fred S. Morse Lumber Co.

Box 1600 SPRINGFIELD, MASS.

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

Phone Main 6386

Mills: Knoxville, Tenn.
Walland, Tenn.
Franklin, Va.

The Atlantic Lumber Co.

Incorporated

Head Office: BOSTON, MASS.

Manufacturers Southern Hardwood Lumber

Canadian Branch

211 Kent Building, 156 Yonge Street, Toronto
Robert Vestal, Manager

ANYTHING IN OAK LUMBER

We have the following stock we are anxious to move, let us quote you on it:

250,000 ft. 1 in. No. 2 Com. and Btr. Basswood
1,000,000 ft. 1 in. No. 2 " " Hard Maple
40,000 ft. 1 x 4 in. 1 face and 2 faces Clear Birch Strips
50,000 ft. 2 in. 1sts and 2nds Unselected Birch
400,000 ft. 1 in. No. 1 Com. Unselected Birch
50,000 ft. 1 in. No. 2 Com. Unselected Birch
100,000 ft. 1 in., 10 and 12 ft. Moulding Birch

Other Northern Hardwoods in complete assortments

BRADLEY TIMBER & RAILWAY SUPPLY CO.
Second Floor Palladio Bldg., DULUTH, MINN.

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

Wistar Underhill & Nixon
Real Estate Trust Bldg., Philadelphia, Pa.
Canadian Rep. - W. J. Anderson, 288 South St., London, Ont.

Pearl City Veneer Company

Manufacturers of

Veneers and Panels
IN ALL NATIVE WOODS

We have for quick shipment Three Ply End Panels, Drawer Bottoms, and Glass-backs

Our shipping facilities for Canadian Trade unequalled.
Enquiries solicited and quotations promptly given.

Factory and Office, Steele St., JAMESTOWN, N.Y.

Y NOT

buy your Hardwoods direct from

THE MANUFACTURER

Can Furnish Anything In---

Kentucky's Best

Quartered White Oak
Quartered Red Oak
Plain White Oak
Plain Red Oak
Poplar
Walnut
Hickory
Ash

Mixed cars furnished at same prices as straight cars.

J. V. STIMSON & CO.,
OWENSBORO, Kentucky

Yellow Poplar Lumber Co.

Manufacturers of Band Sawed
Poplar, Quartered Oak, Plain Oak, Chestnut, Basswood

SPECIALTY:
Quarter Sawed White Oak

COAL GROVE, Ohio, U.S.A.

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

J. M. Clifford & Co.

Manufacturers and Dealers in all Kinds of

Hardwood Lumber

Poplar Basswood Cypress Elm Oak Ash Maple

We have a full stock of the above thoroughly air dried. Complete line and high grades. Prompt shipments on mixed cars.

Best Quality Uniform Grades Low Prices

GET OUR QUOTATIONS BEFORE BUYING

Detroit - - Mich.

D. S. PATE LUMBER CO.

MANUFACTURERS OF

Yellow Pine

OUR SPECIALTIES:

Long Leaf Timbers and Implement Stock.
Short Leaf Finish.

Stock Exchange Bldg. - Chicago, Ill.

Manufacturers of Foreign and Domestic Hardwood Lumber and Veneers.

Ohio Veneer Company

—— Importers of ——

MAHOGANY AND FOREIGN WOODS

Office and Mills: 2624 to 2634 Colerain Ave., CINCINNATI, OHIO.

R. A. Wells Lumber Co.

Wholesalers and Exporters of

Hardwood Lumber

of All Kinds

Special attention to Canadian trade. Prompt Shipments

Our speciality is 1" to 2" Gumwood, 1" to 2" Oak, both plain and quartered stock, 1" to 2" Ash and 1" Cottonwood.

WRITE US BEFORE BUYING

230 S. LA SALLE STREET - CHICAGO, ILL.

THE SOUTHERN LUMBER AND BOOM CO.

SALES OFFICE, CINCINNATI

Band Mills: Valleyview, Ky., Glendora, Miss.

Manufacturers

OAK GUM
POPLAR CHESTNUT
ASH CYPRESS

Hardwoods for Quick Sale

We want to move the following stock quickly:

4/4 and 5/4 No. 2 Common and Better Basswood; 4/4 No. 2 Common and Better Brown Ash; 4/4 and 5/4 No. 2 Common and Better Birch, strictly unselected for color; 4/4 and 5/4 No. 1 and 2 Common Flooring Maple; and 4/4, 5/4, 6/4, 8/4, 10/4, 12/4 and 16/4 Firsts and Seconds Maple. All stock dry and in shipping condition, and either car or cargo shipments.

W. H. White Company Boyne City Lumber Co.
Wholesale Yards at Buffalo, N.Y.
Mills at Boyne City, Michigan

Duhlmeier Brothers Manufacturers Hardwood Lumber

MILLS { Kentucky, Tennessee, Mississippi.

Main Office and Yards { CINCINNATI, OHIO

We now have in stock dry and ready for prompt shipment 500,000 ft. of 1-in., 1¼-in., 1 1/2 and 2-in. plain Red Oak, nice soft texture, good widths, good lengths. Also a nice stock of Red and Sap Gum, Plain and Quartered Cut Oak. Let us quote you delivered prices.

OUR LUMBER IS MANUFACTURED RIGHT AND GRADED RIGHT. WE CAN SHIP QUICK.

Eastern Representative **James H. Walsh,** 95 W. Mohawk St., Buffalo, N. Y.

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

Long-Knight Lumber Co.

Manufacturers Indiana and Southern

Hardwoods

OAK, ASH, CYPRESS Our Specialties

Address all inquiries to the Main Office at-

INDIANAPOLIS, INDIANA

Theo. Fathauer W. M. Hopkins

Theo. Fathauer Co.

WHOLESALE HARDWOOD LUMBER

Our Specialties

Plain and Quartered White Oak. Figured and Plain Red Gum

Southern Yard - **Helena, Ark.**

Address correspondence to

1428 Cherry Ave., Chicago

Choice Hardwood for Quick Sale

We have the following high grade hardwood for prompt shipment :

Our Specialty — Anything in Hickory Lumber

1 car 1½" No. 1 Common Hickory.
1 car 1½" No. 2 Common Hickory.
1 car 1" No. 1 Common Poplar.
1 car 3" No. 1 Common and Better Plain Oak.
1 car 1" x 3" Clear Quartered White Oak Strips.
1 car 1" x 3½" Clear Quartered White Oak Strips.
1 car 1" x 4" and 4½" Clear Quartered White Oak Strips.
1 car 1¼" x 4" to 5½" Clear Quartered White Oak Stripes.
1 car 1½" 1st and 2nds Quartered White Oak.
2 cars 1" No. 2 Common Quartered White Oak
1 car [illegible] No. 1 Common Quartered White Oak.

Indiana Quartered Oak Ash Basswood Poplar

S. P. Coppock & Sons Lumber Co.

Main Office, FORT WAYNE, IND.

Yards: Orleans, Ind., Fort Wayne, Ind., Paoli, Ind.

Canadian Representative: Mr. S. D. Smith.

W. M. Ritter Lumber Co.

MANUFACTURERS

Columbus : : Ohio

Band-sawed West Virginia Soft Yellow Poplar, Basswood, Chestnut, Red and White Oak, all grades and thicknesses in stock, dry.

No Mixed Grades

We ship the product of our own mills only which produce annually over 100,000,000 ft.

Send us your inquiries direct or communicate with our Ontario Representative

John Hall, 314 Crawford St., Toronto, Can.

Phone College No. 2689

W. O. King & Co.

HARDWOOD LUMBER

Our Specialties

Michigan Hard Maple, Birch and Basswood

2452 S. Loomis St., CHICAGO, ILL.

DRY BEECH

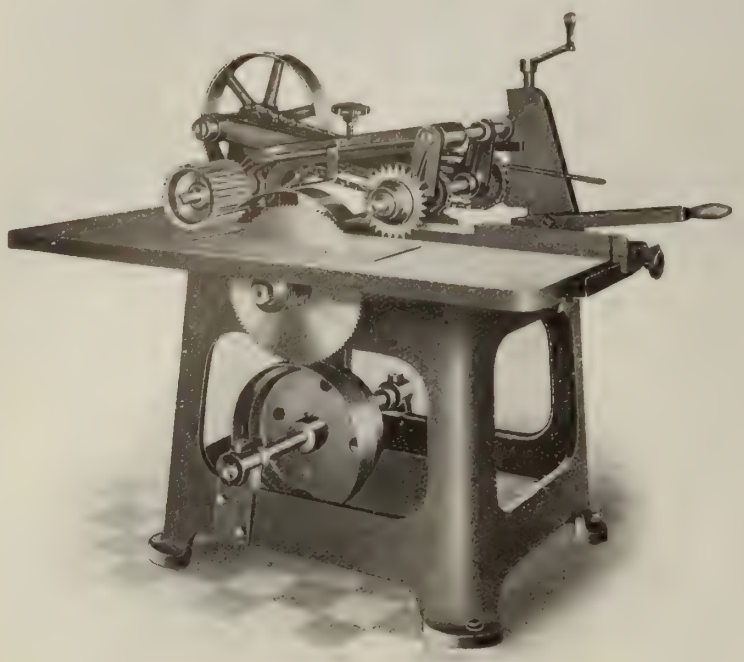
We want to move 200,000 feet 5/4—No. 1 and better dry Beech. A Snap at the Price.

Also quick deliveries on NORTHERN HARDWOODS, YELLOW PINE, OAK DIMENSION, FIR, HICKORY, OAK, CAR STOCK and PILING.

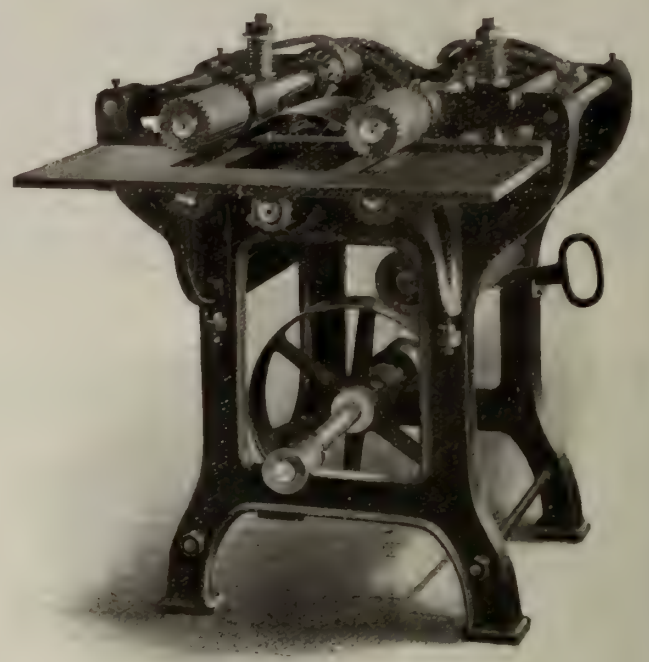
Estabrook Skeele Lumber Co.

Manufacturers and Wholesalers

CHICAGO, ILL., U. S. A.



Self Feed Rip Saw



Self Feed Gang Saw

The Stuart Machinery Co., Ltd.
WINNIPEG, MAN.
Agents for Saskatchewan, Alberta and Manitoba

Write for catalogue. It illustrates many special Box Factory and Saw Mill machines

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.

Cross - Cuts for Good Hard Work

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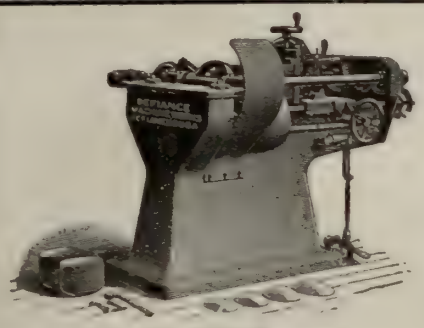

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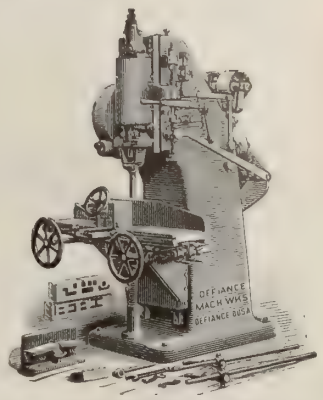

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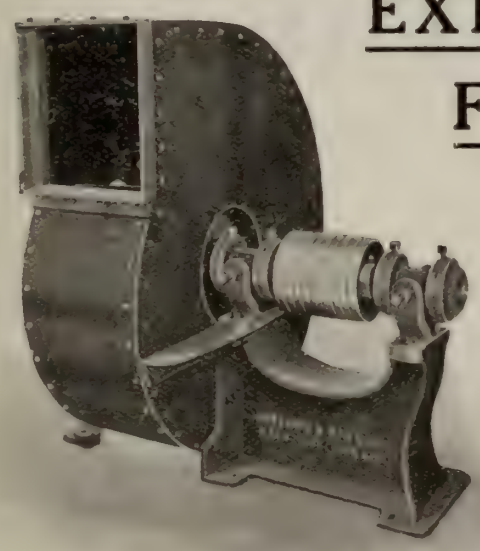

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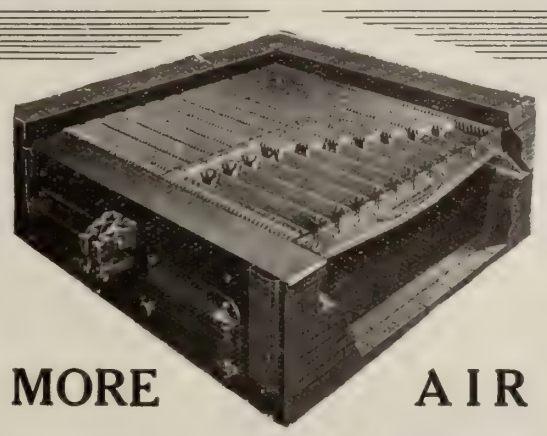

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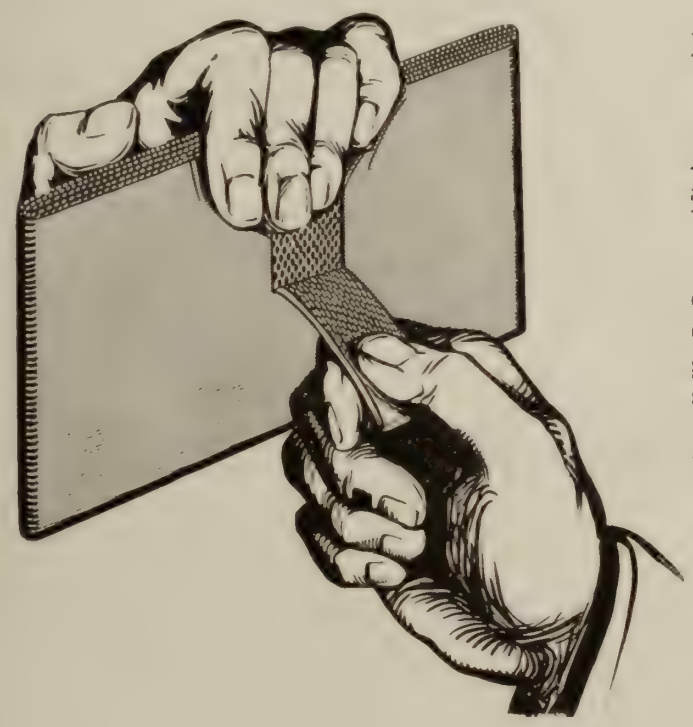

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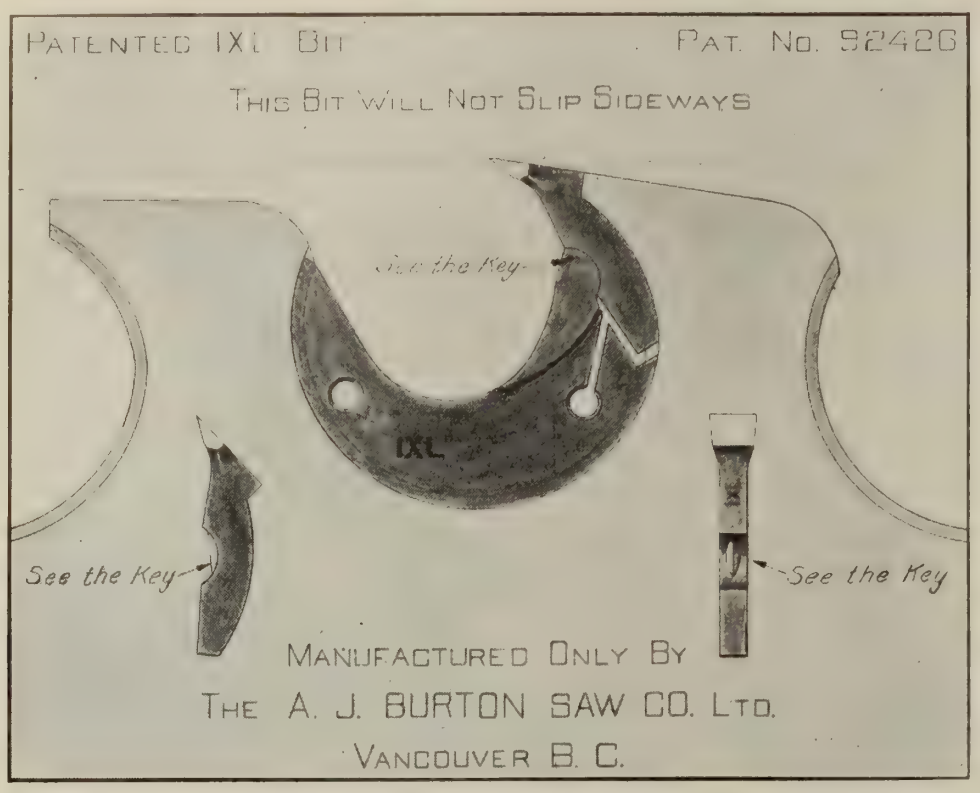

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A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

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Vol. 32 Toronto, October 15, 1912 No. 20

The Pulpwood Problem

Irrespective entirely of the merits of the arguments which it contains, an article published recently by the New York Paper Trade Journal upon the proposed prohibition of the export of pulpwood from privately owned lands in Canada, is of exceptional interest, inasmuch as it presents in simple and remarkable terms the viewpoint of those in the United States who may be supposed to be most closely interested in maintaining the supply of pulpwood from Canada. The article is a frank assertion that Canada's position in the matter is paramount, and an admission that if Canada had sufficient pulp and paper producing plants, the proposed prohibition would be economically wise. The real argument of the article however, is that Canada has not sufficient plants to warrant the change to-day and that prohibition would break the market for pulpwood and be a great injury to all pulpwood owners. Incidentally the article hints that the proposal is backed by the paper manufacturers of Canada for the purpose of breaking the market.

The article under discussion is based upon a belief that the Government of Canada is lending a sympathetic ear to the proposal for prohibition. As stated in the Canada Lumberman of October 1st this assumption is not well founded at present. The Canadian government is not likely to act hastily in so important a matter and a commission of enquiry will probably be created to study the question before the government makes up its mind one way or the other.

The following extracts from the article in the Paper Trade Journal are reprinted, that our readers may understand the question from the United States point of view:

> The contention of the manufacturers is that Canada has been losing a large percentage of the profit which should have accrued to her by parting with her wood, instead of first converting it into pulp. So far this contention seems reasonable. But no men know better than those who are behind the movement for the tax, that Canada to-day is in no position to convert into pulp the wood she sends here. Notwithstanding the large number of mills built in the Dominion within the last few years, she falls a long way short of the necessary capacity to supply even a moderate proportion of the demand for pulp in the United States, and that it will take a great many years before she could hope to be so equipped. Meanwhile it is urged that no wood be allowed to go out of the country.
>
> The consequence of such action is very clear to foresee. There would be a cessation of cutting; hundreds of landowners would be deprived of the value of their property; thousands of men would be thrown out of employment, and those fortunate enough to secure the limited domestic market would have to part with their product at prices dictated by the purchasers. This surely would be a severe blow to the pulp wood industry of Canada.
>
> The Conservation Commission and the Forestry Association are favorable to the tax; yet if the views as expressed by the promoters of the idea are correct, there will be no curtailment to the cutting of the forests; for the same quantity of wood, it is claimed, will be required to meet the increased demands of the domestic pulp manufacturers. But without an immediate influx of manufacturing concerns into Canada, where is this increased demand going to come from? If it were possible, over night, to construct a sufficient number of plants to meet American requirements for pulp, they would have to be built of necessity in most remote sections of the country, many parts of which are at present inaccessible, and the difficulties of transportation would add so much to the cost of landing the finished product in this market, that the American consumers would, perforce, be obliged to turn to Europe. The Canadian owners of the new mills would then find themselves with expensive plants and costly limits and nothing else.
>
> The proposition, to business men on this side, appears to be an attempt on the part of the Canadian paper and pulp manufacturers to break the wood market. Nothing is surer than if the export tax is imposed, the price of pulp wood will fall thirty, perhaps fifty per cent., which would naturally be of substantial benefit to the mill owners of the Dominion.
>
> Of course in this event, they could no longer rely upon a free market for paper over here, for the tax would automatically restore the duty on news print and book paper.
>
> It has been conceded by the American Tariff Board that Canada can now manufacture paper in competition with the world. But the plants in a position to do this are comparatively few and this draws attention to the fact that the export tax would tend to concentrate the paper making business in the hands of the stronger corporations. It would be a restraint of trade that would work a severe hardship on the many for the benefit of a few. This restraint will be but the entering edge of the wedge which our good neighbors may be made to feel in due course when high financial interests own the water powers and the mills and make the wood market to suit themselves.

The most interesting feature of the above extracts is the reference to the dire consequences of a prohibitive tax, which would deprive Canadians of free entry into United States paper markets. There are those in Canada however, who believe that this has nothing to do with the situation and need cause Canadian paper manufacturers no worry.

Altogether the situation is both interesting and complicated and the duty of the Canadian government is clear, viz: to study the problem from every point of view and then solve it if they can.

Canada's News Print Production

The question is frequently asked if the news production in Canada is not likely to be overdone with the establishment of so many pulp mills, says "The Paper Mill." Recently the outputs of the Spanish River Pulp and Paper Company, the Lake Superior Paper Company and the Powell River (B.C.) Pulp and Paper Company have come on the market, and last week the mills at Sturgeon Falls, Ont., were put in operation, adding fifty tons more to the available daily supply. Other mills are well under way to completion. In the first place, it may be stated that the export of news print to the United States, during the last two years, has increased by over 12,000 tons per year. Last year 55,563 tons were shipped across the border and in 1910 the figures were 43,388 tons. A leading sales

manager stated this week that the demand from the Canadian West was increasing 20 per cent. annually, while foreign shipments were gaining all the while. Shipments are being made to South America, New Zealand and Cuba, as well as Great Britain and South Africa. The imports of news print from Canada to Great Britain in 1907 were only $325,000, while last year they reached $1,600,000, a gain of practically 500 per cent. in four years. The men back of the news print enterprises have little fear of the future and believe that the increased local and foreign demand will take care of the extra production which may come on the market in the next few years. If the mills now under way and those which have been incorporated within the past few weeks carry out their building projects, there will be nearly a thousand more tons daily of news print produced in Canada within the next two years.

Quebec's Enormous Timber Resources

A United States consular agent, in a report to his government upon Quebec timber resources says:

"The timber resources of Quebec province are enormous, though greatly diminished in past years by forest fires. The privately owned timber lands comprise about 6,000,000 acres, and are able to supply 500,000 to 1,000,000 cords of wood per annum for years to come. The island of Anticosti alone is able to produce 80,000 to 100,000 cords per annum for years, a good portion of which, however, will probably be converted into pulp in the near future, as a large mill is now in process of erection there. Pulp mills are also in process of construction in other parts of this district, so that the pulp industry, especially in this district, is bound to witness a great boom in the near future.

"The forests leased to lumbermen by the provincial government are called limits, and their total area covers about 45,000,000 acres. The first of these were leased in 1825 for nominal sums, such leases being good for one year only. Since 1841 such leases were made renewable from year to year, and they practically became private property, subject only to government regulation and the payment of certain stumpage dues.

"Lumbermen were originally required to pay as a guaranty one-quarter of the estimated stumpage dues annually. Later on a bonus was substituted for this payment in order to obtain such leases. Since 1868, however, leases were put up at auction sale, with the result that bonuses varying from $8 to $1,000 per square mile have been obtained at these sales.

About 69,000 square miles of forest lands of this province have thus passed under lease, and the premiums, or bonuses, as they are now termed, between the years 1867 and 1906 represented the sum of $3,250,000, or an annual of $63.74 per square mile.

"In 1851 an annual or ground rent tax was imposed, payable at each yearly renewal day of such leases. In 1868 such tax or rent amounted to $2 per square mile, which was increased to $3 in 1887 and to $5 in 1910. In addition to this, holders of timber licenses have to pay stumpage dues to the government for all timber cut by them on their limits, which dues are fixed for a term of ten years.

"Exports of wood and manufactures to the United States from the consular district of Rimouski during 1910 and 1911 were valued as follows:

"Lath, 1910, $114,064; 1911, $163,885. Logs, 1911, $50,100. Lumber, 1910, $1,036,460; 1911, $931,402. Poles, 1911, $5,909. Pulp wood, 1910, $118,352; 1911, $72,139. Shingles, 1910, $811, 077; 1911, $739,-334. Ties, 1910, $119,948; 1911, $93,477. Wood pulp, 1910, $186,123; 1911, $171,619.

"The decrease in exports of shingles was due to the low price in New England markets, which caused several of the mills to curtail production and some manufacturers to close their mills altogether. Inasmuch as the demand for shingles in the American markets is increasing and prices have improved, the logging of cedar has been increased and there is every prospect of the market being abundantly supplied this season. One of the largest shingle mills in this district was destroyed by fire in August last, but a new mill has been erected and equipment is being installed that will triple the output of the antiquated machinery in the old mill.

The decline in exports of lumber during the last year was general, shipments to foreign countries showing a greater percentage of loss than those to the United States. Had the shippers in this district been provided with adequate transportation facilities, the exports of lumber to the United States would doubtless have shown an increase over the previous year. Practically all lumber shipments from this district are forwarded by railway and these have been seriously hampered by a shortage of cars. A number of large mill orders were cancelled because shipments could not be made within the contract period, entailing serious loss to the manufacturers.

The pulp-wood limits at Bersimis, on the north shore almost opposite Rimouski, were successfully worked during the past season. Extensive logging operations were carried on, so that the product will probably be doubled next season. Shipments from this property were formerly made through this consulate, but these now go to Quebec.

A new company, financed with American capital, has purchased the pulp-wood limits at Manicougan river, and extensive preparations are being made to exploit the property. There is a fall not far from the mouth of this river capable of furnishing about 350,000 horse-power, and this is to be utilized in connection with manufacturing the product of the forest. A wharf is to be constructed near the entrance of the river so that vessels drawing ten to twelve feet of water may reach the wharf at high tide.

A Ship Without a Compass

One of the most difficult features of the lumber trade for anyone to understand—whether he belongs to the trade or not—is the absence, in practically all parts of Canada, of anything in the way of definite grading rules. If an inquisitive member of the trade were to investigate the causes of the disputes and other kinds of trouble which occur during his business year, he would unquestionably find that a large percentage of them are the result of misunderstandings which might easily be avoided if definite grading rules were in force. There are in fact, just two principal sources of dispute in connection with the lumber business. One of these is misunderstandings with the railway companies about freight rates and deliveries and the other is disputes among members of the trade in regard to grades. These two varieties of difficulty have characterized the lumber trade since its earliest days. A great deal has been done in the direction of reducing the sources of trouble relating to freight matters. Only spasmodic attempts have been made to simplify grading troubles and they have in most cases been fruitless.

The Canada Lumberman receives frequent letters from members of the lumber trade in many parts of Canada, asking for information upon grading rules and in practically every case, we are obliged to give enquirers the remarkable reply, that in connection with this great industry, there is practically no such thing as an official set of grading rules. When one considers what has been done in the United States in different parts of the country in connection with the same question, it is difficult to claim that similar results could not be secured in Canada. Take for instance the matter of grading hardwoods. Two important associations have been established in the United States and their rules are in force so generally that they practically regulate the whole hardwood trade of the United States. The rules of the National Hardwood Lumber

Association are also used to a large extent in the hardwood trade in Ontario. In Quebec they are supposed to be used, but are really unknown to a large majority of those who manufacture and sell hardwood in that province.

The question of grading is one which depends for its solution entirely upon those who are engaged in the trade. The government of Canada cannot be expected to establish grades by legislation. They have done so in connection with the grain trade and from all that one can gather, they would probably be greatly pleased to-day if they could escape the responsibilities which have been placed upon them as a result. Certainly, with the example of the grain trade before them, it would be difficult to induce the government to adopt similar measures in connection with the lumber trade. What the lumber industry needs more than anything else is that those who have made a study of its various branches and who are not so wrapped up in their own particular branch of the trade as to ignore the benefits of the industry as a whole, should take the trouble to organize grading committees to study the problems of grading in connection with each important variety of lumber. If this were done, we believe that sufficient information would soon be secured to convince most of the members of the industry that it is to their benefit to have grading rules adopted in connection with practically every variety of lumber. There are many varieties of lumber to be considered and many widely varying markets, yet we believe that the problem would not be nearly as difficult as it now appears if it were seriously considered by representatives of the different branches of the trade who have the interest of the industry as a whole at heart.

Last year a tentative experiment was tried by some of those who are interested in the white pine trade in Ontario. They studied the grading of white pine exhaustively and drew up a set of rules which were admitted by all who saw them, to be fair to all branches of the trade. These rules they presented to the Canadian Lumbermen's Association at its annual meeting last February, hoping to have them discussed and possibly adopted. They were not very sanguine of having them adopted immediately. Like all who take up an important reform of this nature, they realized that their plan would be open to criticism. They were however, disappointed in a manner which they were far from deserving. Instead of being criticized, their scheme was almost ignored. After the rules had been read before the association, a motion was carried that a committee be appointed to consider them and report. The committee appointed was composed pretty evenly of men who had expressed their disapproval of the plan and of those who had been instrumental in introducing it. Since that time nothing more has been heard of the matter. Perhaps the committee will report at the next meeting of the association, but those who have the plan at heart are not very hopeful of securing a favorable report.

A letter appears in the present issue of the Canada Lumberman from a hardwood manufacturer in Quebec who has given the question of hardwood grading a great deal of study. He brings out the remarkable fact that the hardwood trade in Quebec is doing business in the dark. After exposing the absurdities of the situation, the writer says, "The most necessary work to be accomplished for the lumber dealers of Canada is to get them to see the necessity of having a compass to go by." In this sentence he strikes the nail most forcibly upon the head. Everyone in the lumber trade knows that the absence of grading rules is a serious drawback to the trade and a source of great loss. When it comes to providing the trade with "a compass" however, there is an element of apparently great influence, which discourages any such plans. "The most necessary work to be accomplished," is therefore to get this element of the trade to appreciate the fact that their own interests should be made subservient to those of the industry as a whole, if they happen to clash. In reality there is no clashing whatever, so far as we and many highly esteemed members of the trade believe.

There is a misconception abroad throughout the whole lumber trade that the adoption of grading rules would work out to the disadvantage of those who have already established their own grading systems at considerable expense. We do not believe that this is the case. Rather, on the other hand, would it be an advantage even for these, if the other members of the trade were able to carry on their business according to definite grades. The only way in which a solution of this problem can ever be reached is by everyone sinking his own individual inclinations and deciding to assist in bringing order out of what is to-day one of the most remarkable instances of expensive chaos, that can be found in any progressive industry. We believe that if present conditions are permitted to continue for many years more, the lumber industry will not be able to classify itself legitimately as "progressive."

The Canada Lumberman is in a position to appreciate, perhaps more than members of the trade, the necessity for some such reform. So continually does it receive enquiries regarding grading rules, that there is only one conclusion which can reasonably be reached, namely, that a great many members of the trade are keenly anxious to have the reform brought about. For this reason we have frequently presented our views upon the subject and we hope to continue doing so until something definite has been accomplished. As to the actual working out of the reform, this must be supplied by lumbermen themselves. We can see no more reasonable solution than that those who are interested, should make a serious attempt to bring together a large number of others who are interested in the same branches of the trade and persuade them to draw up suitable grading rules and agitate until they have been definitely adopted by some responsible body representing the trade as a whole. We believe that the Canadian Lumbermen's Association is the logical body for putting grading rules into effect. In the past the association has done a great deal along other lines but has done little or nothing in the matter of solving this, probably the most serious problem of the whole trade. If the Canadian Lumbermen's Association wishes to make itself a really effective and valuable body, it can adopt no more promising method than to take up this problem and push it vigorously until the majority of members of the trade have been brought to see the situation eye to eye.

Praise for B. C. Forest Policy.

Prof. Ralph Hosner, superintendent of the forest service of the territorial Government of Hawaii, during a recent visit to the Department of Lands, Forests and Mines of British Columbia, expressed his appreciation of the forest policy which has been adopted in that province, as follows:—

"I do not know of a more thorough or more efficacious policy than your government has put into force. It is bound to have an immense effect on the prosperity of this province through the presenvation of its forests, which are probably the most valuable on this continent. Certainly the lumbermen of the country are looking to the forests of British Columbia for the big timbers that are called for, and the government of the province is taking steps that will, I believe, result in the exploitation of the forests in the best and most economical manner, bringing millions of dollars to the province.

"One thing that has to be guarded against is fire in the forests, the greatest enemy the forester has to fear. I understand from Mr. Macmillan that the system of fire ranging in British Columbia has been very materially improved this season, and that it will be still further strengthened and systematized as the years go on. This is a work in which every citizen should feel that he and she has a duty to perform in holding up the hands of the department. It may be a matter of a little time to educate the people at large up to the point of realization of the immense value of their timber, and the irreparable loss that is sustained in every way by any one of the forest fires that sweep over the country, but I am sure the people of British Columbia will quickly learn and will not begrudge the money that is needed to perfect the system of protection of the great asset they have in the forests."

How is Hardwood Graded in Quebec?

Strange Absence of Definite Rules for Guidance of the Trade—Inspectors Following Local Custom Rather than Systematic Regulations—A Case for Reform

Remarkable letter to the Editor in which a few unpleasant truths are told about Hardwood Inspection in the Province of Quebec.

So. Stukely, Que., Oct. 7, 1912.

Editor Canada Lumberman:

Yours of October 1st just received, and I note with interest what you say regarding the matter of the inspection of lumber. I am glad to know that people are becoming interested in a subject that has been allowed to remain too inert for the good of the trade.

I believe you are quite right in giving your correspondent the impression that the rules compiled by the National Hardwood Association have been adopted by the Canadian trade as far as any, but lest he get a very vague idea of the requirements of said rules, I would suggest that he be instructed that perhaps the average shipper knows as much about such rules as a teacher of a public school does about the Chinese language, and such lack of knowledge is not confined alone to the shippers, for perhaps I am safe to say that but few local dealers, or those inspecting in the local trade, ever saw a copy of the rules. We also have reason to fear that not many culling in this country for the United States market would care to be placed under an examination for their profession.

Were you to question the majority of the cullers in this province for their authority you would soon discover the fact that—they cull that way because the other fellow did, and so on, obtaining their knowledge by tradition which sometimes, perhaps, might warp the judgment of the National Hardwood man who had carefully studied the rules and was able to make a practical application of them.

I think I am safe in saying that seldom are any rules of inspection ever mentioned by the majority of Quebec dealers when quoting prices, and not having rules to go by, there is often much dissatisfaction in the trade.

It will be noted by a perusal of the directory of the National Hardwood Lumber Association for 1910, a copy of which is before me, that but two persons in the Dominion, up to that time, were enrolled as members of that association.* However, such is no excuse for being ignorant as to the requirements of the rules; which, we believe, are the most practical of any in existence, and which, we believe, should be universally adopted; for they may be obtained for ten cents by any one applying to the association, which is located in the McCormack Building, Chicago.

By the way, the writer is not a member, but has worn out one copy of their grading rules, endeavoring to know the reason for things, and this, he believes, has enabled him to avoid much trouble and to make friends instead of enemies.

We know of no other rules recognized in this province except those adopted by the Montreal Board of Trade in 1907, which are regarded, by some, as perhaps a mere joke. We do not wish to discriminate in our criticism against those manoeuvring on this side of the line, for the writer was once called upon to defend a shipment that had been consigned to one of the largest manufacturing concerns operating in that famous chair town known as Gardner, Mass. They claimed to buy all their stock on the National rules, but when put to the test, confessed that neither the manager nor their aged inspector, who bragged of extensive experience, ever saw a copy of such rules.

We might also recite other instances which show that technical knowledge of the inspection of lumber is sadly lacking, especially in this country, despite the above narrative.

Now, in reference to the trade across the water; while we like the market, and have never had a shipment turned down there, while doing our own inspection; to our mind, it is "peculiar to itself." It is no wonder that your correspondent is unable to secure copies of rules for inspecting for that market, for there are none. The shipper must first find out what the other fellow wants and then cater to it. While this may seem hard with the Atlantic between, it will be observed that while they have no printed rules, we are led to believe, the inspectors there have much the same ideas and with a bit of natural instinct, one can quite readily catch the idea. If not inclined to hold a penny so near the eye that a dollar is rendered invisible just beyond, he will get along quite nicely, while for a fancy stock of logs we prefer, as a rule, the United States market, we find that the Liverpool trade will accept pieces of cutting that the New York people would never consider; hence, to be successful one must know how to prepare stock for that trade, the requirements of which are vastly different from any of the United States markets.

It is evident beyond question that while the dealers of Ontario have quite universally adopted the National rules for the grading of hardwood, and have acquired a better knowledge of them, as a rule, than most Quebec dealers, we, the people of Canada are practically without a guide to go by when it comes to culling or grading lumber. The writer was eight days in a high court of this province as a witness among nineteen dealers, many of whom had been shipping for many years, and were I to write you the frank confessions made there before the judge, of ignorance of what constituted a mill cull, shipping cull, etc., you might think me writing a fairy tale, even the expert (?) from Montreal, I am very certain, never saw a copy of any rules for the inspection of lumber in his life.

The testimony of the expert (?) would be to a real inspector what the testimony of the man who had seen a "chest" foundered horse would be to a real, studied, veterinary.

Under such conditions is it any wonder that the shipper gets the idea that those in the market are sharks and the fellow at that end thinks that the shipper is something worse?

To the writer's mind the most necessary work to be accomplished for the lumber dealers of Canada is to get them to see the necessity of having a compass to go by, then let them all come together and either adopt the National or some other rules.

The writer is under the impression that there should be an association formed for the purpose, and I believe such pressure might be brought to bear on the British Board of Trade as would induce them to adopt such rules as are agreeable to dealers over there. Such an association should extend its membership to individuals on both sides of the water.

This matter has been on the writer's mind for several years and I am glad it is being agitated, for at present both the shipper and the buyer, as a rule, are at sea and each is wholly dependent on the good humor of the other.

As to the matter of soft woods, for the United States and domestic trades, we know of no rules in force except those applying to the specific markets for which they were intended, like those inscribed on the statutes of Massachusetts or those adopted by the Montreal Board of Trade, as above referred to, which, we believe, are not considered very practical.

Since I observe that your paper circulates both in England and Canada I am confident that a few properly prepared articles through its columns might induce measures to be taken for establishing set rules in the English market as well as in this country.

H. E. MILES.

*Editor's Note—The latest issue of the Hardwood Lumber Directory shows that the membership of the National Hardwood Lumber Association includes sixteen Canadian firms, fourteen of which are located at Toronto, one at Montreal and one at Meaford, Ont.

A New Way to Prohibit Pulpwood Export

The different proposals made from time to time to prevent the export of pulp wood from Canada have been of much interest to readers of the Canada Lumbermen. The latest development is a report emanating from Ottawa, as follows:—"Application has been made to the railway commission for permission to increase the present comparatively low rates on pulpwood carried to the American border. The railway companies claim that existing through rates on export pulpwood are not profitable and are unduly low, owing to rate-sharing conditions with the various roads across the line.

Furthermore the Canadian roads in Quebec, Ontario, and New Brunswick prefer to haul the pulpwood to Canadian pulp and paper factories, because in that case they also get the advantages of hauling the finished product. If the export freight rates are made higher, and the railway companies believe traffic conditions justify this, the result will be to make the price of pulpwood higher to the American buyer, since he must get his supply from Canada in any case.

But economic conditions already encourage the manufacture of pulp and paper in Canada near to the source of supply. If it is made still more expensive for the American mills to import their raw product from Canada it is believed there will be a steadily increasing incentive for the transfer of the American mills to this side of the line and for the erection of new Canadian mills.

At the same time the proposed equalization of rates on pulp-

wood to Canadian and to American mills should not affect the price now obtained by the Canadian sellers of pulpwood, since the source of supply and local demand are not affected.

The government, it is understood, looks on the proposal with favor and the railway commission may possibly take this into consideration when the rate increase application comes up for hearing about the middle of next month."

The Development of Grand Falls, N. B.

Fredericton, N.B., Oct. 2nd.—Further advices are to the effect that the pulp and paper mill project of the Grand Falls Co. Ltd., in New Brunswick will be of even greater magnitude than was at first announced. It is learned on good authority that the company, which has strong financial backing, will also operate a large saw mill, as well as engaging extensively in the development of the natural powers of the St. John River.

At Grand Falls at the head of the St. John there is a possible development of 80,000 potential horse power, which could be supplemented with the available power below the falls, where some of the largest tributaries of the St. John have their confluence with that river. Although there are no great falls below Grand Falls, the descent of the river would admit of fully three dams being constructed with a height varying from 15 to 20 feet, each of which would have a possible development of from 20,000 to 25,000 horse power. In all there would be about 150,000 horse power available at and below the Falls. This power would be continuous.

The largest of these powers to be developed at once is that at Grand Falls. The power, which the Grand Falls Co. Ltd., will develop, however, will greatly exceed the requirements of the pulp and paper mill and the surplus power will be available for the stimulation of industrial development at Fredericton, the capital of New Brunswick, where several large factories are now building.

As the company would have a large quantity of logs, which could be more profitably cut into sawn lumber, they will operate a large saw mill and use all the waste in the manufacture of paper. New Brunswick is annually allowing the trimmings, sawdust, edgings, slabs, etc., to go to waste, while this waste would be a great source of revenue to the province, if utilized as it could be.

The construction of the dams will afford transportation by water for the waste of the mills all along the river. The fact that it is waste is no objection to its being utilized for pulp. In fact experience of pulp makers on this continent has shown that the sappy portion of logs, which is thrown away in the shape of edgings and slabs, makes the finest and toughest paper, when made into pulp by the sulphite process. The manufacture of carbide is also likely to be undertaken as a result of the development at Grand Falls. Plentiful and cheap power is essential in the manufacture of carbide and with the railway freight rates in favor of the St. John River a large industry in its production is among the probabilities of the immediate future.

Fredericton, the largest centre in the western section of the province, will no doubt be greatly benefitted by the introduction of cheap power. The city possesses all the requirements of a large manufacturing centre. The city council has authorized the Publicity Commissioner to advertise a free site, free water and tax exemption to capitalists and manufacturers who will build up stable bona fide industries.

A New St. John, N. B. Firm

The Provincial Lumber Company, Ltd., has been incorporated at St. John, N. B., with George McKean, of St. John, president; William E. Goulding, of St. John, treasurer, and George E. Deming, of New York City, secretary. The new company will handle in the United States the lumber stocks of George McKean, who handles large quantities of lumber for the European and South American markets, to the extent of 80,000,000 feet per annum, and has been one of the largest shippers from Eastern Canada for years. His business in the United States has been wholly with outside wholesalers, but from now on will be conducted by the above company. They will also handle the stock of the Kent Lumber Company, Gold River, N.S., with an output of spruce, pine and hemlock to the extent of about 7,500,000 feet annually. The daily capacity is about 50,000 feet, and the mill equipment includes a circular and gang, with lath mill and planer attached. The new company will also handle the output of the River Valley Lumber Company, Oromocto, N.B., cutting about 75,000 feet per day during sawing season. The principal output is spruce, white pine and hemlock, with a combined output of 10,000,000 annually. Under this plan the New York office will have available for this market about 20,000,000 feet of lumber and a liberal supply of lath. The hemlock will include anything in the regular sizes up to 20 feet in length. The white pine is cut in 4/4, 5/4, 8/4 and 12/4 thicknesses, and can be shipped by rail or vessel, as can also the product of the spruce mills. George E. Deming, secretary of the company, makes his home in Hackensack, N. J., and will manage the New York office, which has been opened at 71 Beaver street, New York. He has long been identified with the local trade.

Proposed Enlargements to D. J. Buckley's Mill, Newcastle, N. B.

Mr. D. J. Buckley, French Fort Cove, near Newcastle, N.B., is well known throughout the Maritime Provinces as a progressive and successful lumberman. The accompanying illustration of his mill shows it as it has been during the past few years. Mr. Buckley at present has plans for enlarging this plant and expects during the season of 1913 to be manufacturing lumber, lath, etc., much more extensively than in the past. The present mill is equipped with two rotary saws (one of which was recently added) a double edger, and a lath machine. The product of the mill consists largely of spruce. Mr. Buckley operates upon limits at Barnaby River, Kaines River and Bay du Vin. His limits consist of about fifty-two miles of leased land and 5000 acres of freehold land. Upon thesehe has an excellent stand of spruce timber from which he manufactures a product which has become favorably known to the lumber trade. The mill at the French Fort Cove gives employment to about thirty men.

In addition to the above mill, Mr. Buckley operates two portable mills in the woods during the winter time. The market for his product is found in England and the United States. He also disposes of a considerable quantity of lumber to the coast trade in the Maritime Provinces and a small portion in Quebec province. The output is not entirely spruce, a fair amount of hemlock also being produced.

Mr. Buckley's plans for enlarging his mill include the installation of equipment for dressing lumber for the Ontario trade. He will extend the mill, put in planers and also erect a large drying shed. In addition to this he intends to install a couple of shingle machines.

D. J. Buckley's Mill at French Fort Cove, N. B.

Those who know Mr. Buckley and his successful business methods confidently expect that when these plans have been carried out he will be successful in enlarging in a satisfactory manner, the excellent trade which he has already built up.

Operations at the Douglas boom on the Miramichi River closed for the season of 1912 about Oct. 1st and work at the Mitchell boom will probably be cleaned up in the course of a week or so. A large crew of men have been transferred from the Douglas boom to South Bay where they will raft the three million feet of logs which broke away from the Mitchell boom during the mid-summer freshet.

The logs handled by the St. John River Log Driving Company this year will probably total between 90 and 95 million superficial feet.

The Partington Pulp & Paper Company, St. John, N.B., present owners of the Gibson lumber lands and mills, have closed their contracts with lumber operators for next winter's cut. The total cut on the Nashwaak River this winter will be only about 10,000,000 ft., or about half of what it has been in former years. This reduction is a serious matter for Marysville and the Nashwaak Valley, not only so far as the coming winter is concerned but also for next summer. Should the Partington Company start, as expected, the erection of their pulp mill at Marysville, the situation there will look much brighter, but nothing definite has been announced as yet.

The Log Input for the Coming Winter

Further Reports Bear Out Conclusion that Ontario Cut will be Smaller—B. C. Operators Expecting Good Trade Next Summer

Further reports which have been received by the Canada Lumberman, indicate that the quantity of logs taken out in the woods this winter will be considerably less in Ontario and eastern Canada, than during last winter, and that in the prairie and mountain districts the cut will be about the same, and possibly greater in the B. C. coast district. The following letters have been received since the publication of the October 1st issue of the Canada Lumberman:

Reports from Ontario Firms

From a large Northern Ontario firm:—We are putting in our usual number of camps this winter and expect to get out about the same quantity that we did last winter. It has been hard to get men with us so far, but they are coming a little better at this time so that we think we will not be disappointed.

From a large Ottawa Valley firm:—We have put in four camps on our limits. This is the same number as last year. We expect to take out between fifteen and sixteen million feet. It is our understanding that the rest of the operators in the Ottawa Valley expect to take out the same amount of timber as last season, with the exception of J. R. Booth.

We expect to operate five camps the coming winter, the same number as we operated last season, and to put in approximately the same amount of timber, that is about ten million feet. We anticipate a reduced cut this winter in our general vicinity as we understand that a number of concerns are reducing their output and we do not know of anyone who is increasing it. Labor is scarce and will probably continue so, at least until the mills are shut down.—Wolverine Cedar & Lumber Co., Little Current, Ont.

We did not put in any logs last season and hardly expect that we will this coming winter, as we prefer to let our timber lie for the present. We have not had many figures as to how much will be put in, as a whole, this coming winter, but we are inclined to think it will be considerably less than a year ago, which was less than the preceding year.

There seems to be a good market for the cheaper and lower grades of lumber, but the middle grades have not been quite so strong as they were in the past year.—Playfair & White, Midland, Ont.

From a large Georgian Bay company:—We are putting in this season, sufficient logs to run our mill. Last year we did not have quite so much and in consequence have done a little outside sawing at our mill, in order to run it the full season. In other words, our cut in logs for this logging season will be about 20,000,000 feet. So far as our neighbors are concerned, the cut will be much below that of last year, which was also less than the year before. This shortage in logging operations on the North Shore of Georgian Bay is due to various causes. In a few instances the lumbermen are cut out and have not acquired any more timber. In other cases saw mills have been burned, and pending the erecting of new mills they are not operating so heavily.

We expect to cut about the same quantity during the coming winter as we did last season. This will depend upon the supply of labor, which, from present indications is not likely to be all we could desire. We have already started a couple of camps and will start more as soon as harvesting operations are over and men offer more freely.

Supplies show no signs of being any cheaper although hay will probably be about the same on account of the heavy crop.

Lumber sales have been very satisfactory and we have experienced by far the best year in our history. Prices have advanced considerably during the summer and hemlock is approaching the figures we have always felt it should fetch, compared to the other woods produced in Ontario. It has been no trouble to sell stock of any kind. The trouble has been rather, to make deliveries as fast as we would like. Dry stock was cleaned up early in the summer and green stock has been shipped direct from the mill as fast as it could be sawn, as a result of which we have considerably less lumber on hand than we have had at this season of the year, for many years past. At the present rate of shipment we will carry but a small fraction of stock into the winter.

Cooperage mills in this district report a banner year and stocks entirely sold out.

Taken altogether, 1912 can be described as the best year for lumber that we have ever known and what is still better we believe the outlook for 1913 is fully as good, if not better.—The Pearce Co. Ltd., Marmora, Ont.

Quebec Operations

Our business this year, in round figures, will be the same as last—Price Brothers & Company, Limited, Quebec, P. Q.

From a large eastern Quebec firm:—This company is not planning to operate at all during the coming winter. We find that it is impossible to make money in manufacturing logs as small as 6 in. in diameter, which the Government requires to be logged in the woods. This company has a rossing mill, but, as the property is all on Crown land, they have found no sale for rossed wood in Canada, and the only way out is for them to put up a pulp mill. There is no water power on the property, so that there is nothing left but a sulphite or sulphate mill, and at the present time there are cruisers on the property representing sulphite interests.

Operations in general, along the whole Gaspe coast, seem to be curtailed or stopped altogether, for the above reasons, and most of the men have gone away to the Ottawa and other larger lumbering districts for work.

Reduction in New Brunswick

I do not think there will be half the lumber got out in this district this season that there was last. As for myself, I do not expect to get half the quantity that I did last season. I expect to get about two million superficial feet this year, where I got about five million feet last year. I have only three camps in, and do not intend to increase that amount, unless there is a decided improvement in the freight situation. As near as I can find out, what I have stated in regard to my own cut, will be repeated in this province by other operators to a large extent. The lumber situation in this province, this season, has been about as bad as it could be, owing principally to the high rate of freights asked by both steamers and schooners.—I. C. Prescott, Albert, N.B.

Critical Situation of Nova Scotia Industry

The demand for lumber from all markets this year has been such that the stocks will be practically cleaned up by the ends of the season. Owing to the rapid advance in stumpage values it is becoming more and more evident to timber holders in this province that the proper course for them to adopt is to cease cutting, allowing the timber to grow and secure their profit in the still further increase in stumpage values which must result, until such time as the value of standing timber makes the price commensurate with the cost of growing a forest.

Looking over the men engaged in lumbering in this province we fail to find any among those who have been cutting actively for a number of years, who have hade much profit from their operations. On the other hand those who have been letting their timber lands grow have seen them quadruple in value in the last five years. This condition will continue until the condition above indicated is reached.

While it is difficult for men who have been actively engaged in lumbering to cease operations suddenly, we are satisfied that there will be a general restriction in cutting during the coming winter. We shall not put in more than three or four camps, cutting possibly about two-thirds, at this point, of what we have been cutting for the past ten or fifteen years, this policy being adopted with a view to further curtailment in 1914.

Besides the facts above referred to the pulp industry is rapidly forcing its way to the front as affording the most remunerative manner in which timber can be used. In this locality we have a water power capable of producing 5000 h.p., running to waste ever since the country had a history. Tributary to this water power we have about 50,000 acres of timber land. It seems to be the only means of safeguarding finances to gradually cease the cutting of lumber and conserve our timber lands, with the object of being able to develop a pulp industry which will use practically all kinds of soft woods and yield a larger margin than is now secured from the lumber industry as conducted upon present lines. Our opinion is that this is the general view held by the lumbermen of this province.—Clarke Brothers, Bear River, N. S.

Operations in Prairie Provinces

We have two lumber camps in operation and expect to take out about six million feet of spruce lumber. This output would be about the same as last year.—Saskatoon Lumber Co. Ltd., Saskatoon, Sask.

From a large Manitoba firm:—I expect to operate four camps this winter with an output of about fifteen million. You ask me how this will compare with last year. In reply I would say I expect to have about two millions more stock than I sold last year. My present business requires from twelve to fifteen million per annum.

I expect the stock taken out this winter in northern Manitoba will be probably five or ten per cent. more than was taken out last year. Demand for lumber in eastern Saskatchewan and Manitoba, which is the territory in which I operate, is fairly firm and if weather conditions for the next two months are favorable for threshing and marketing the crop, I expect the prices will be a little firmer.

As you are aware crop conditions affect the lumber business very much in this country and it is just a little too soon to prophesy what lumber

conditions will be this coming year but the indications are that the prices will stiffen up a little and the demand will be good.

In western and northern Alberta competition is so strong and prices are cut so much by lumber firms shipping from British Columbia, Oregon and Montana to western and northern Alberta that I have not found it profitable to ship any lumber from my western mill to the prairies so far. In other words prices ranging in Saskatchewan for products of a spruce mill are higher than prices for the same material for points in northern Alberta and northern Alberta has been used as a slaughter market by mills shipping from the United States.

We expect to put in about twelve camps and take out about fifty million feet this coming winter. This will be about twenty-five per cent. less than last winter. In regard to operations in general in our district, the only operators in the immediate vicinity are the Prince Albert Lumber Co. They, we understand, do not expect to take out more than twenty million this winter. This would be less than half of what they did last winter. Considerably more timber was logged last winter than the mills will be able to cut this summer. Consequently, logging operations will not be quite so extensive this winter on account of the stock of logs on hand at the close of the present sawing season.—The Big River Lumber Company, Limited, Big River, Saskatchewan.

B. C. Interior Operations

From a B. C. interior, firm:—As we have a good part of our last year's cut, we shall probably only take out about 5 million feet this winter. As a rule we take out about 10 million. The demand for lumber appears to be good and prices seem to be strengthening.

Our logging operations for the coming winter will be in the neighborhood of twenty-five million feet; about the same as last season. The operations in general in this vicinity will be about the same as last season.—The Otis Staples Lumber Co. Ltd., Wycliffe, B. C.

From a B. C. Interior firm:—We expect to take out about three million feet of logs this winter. We find the lumber business fairly satisfactory, the demand being good though the prices are light. We hope that prices will advance.

From what we have seen of the lumber business the last year and a half if we had our money in our hand seeking investments we would invest in something besides the lumber business, but having it already invested we have to keep operating in order to preserve our principal intact. Our plant would deteriorate as fast when not being operated as when in operation.

Extensive Operations in British Columbia

Although we have a large tract of timber we have not touched it as yet, and we will be doing no logging during the coming winter.—J. Hanbury & Co. Limited, Vancouver, B. C.

We only operate one logging camp, and that is situated up on the west coast of Vancouver Island, about sixty miles above Victoria. We employ 140 men, operate four miles of railroad, five donkey engines, four yarders and one roader. We expect to cut about two and a half millions each month. —British Canadian Lumber Corporation Ltd., Vancouver, B. C.

Our output is normally about nine million feet per month. We propose to enlarge this, and next year to have a monthly output of not less than fifteen million feet. This will be considerably in excess of our past output. We propose to continue an enlargement of our operations, as we have approximately four billion feet of timber.—Canadian Puget Sound Lumber Company. Limited, Victoria, B.C.

We are in the coast district, and log the whole year round, in fact we do more in the summer than in the winter. Our average output is about 15 to 18 million feet per year, and as far as we can judge we will continue getting out this quantity. We find conditions are improving, and we anticipate that next year will be a better season than 1912.—The Abbotsford Timber & Trading Co. Ltd., Abbotsford, B. C.

From a large B. C. coast mill:—As you are probably aware, our logging operatiins extend throughout the whole year, both summer and winter.

We have four camps running, up the coast, which we expect to run steadily all next year. The output of these camps will be about 25,000,000 feet. This will be about the same quantity as the present year, which will supply our wants, as our mill capacity is about 25,000,000 feet per year.

Trade this fall is exceptionally good, both local and northwest markets. We have plenty of orders to keep us going steadily until the end of the year. Cars are scarce.

From a large B. C. coast firm:—We figure on operating one camp all winter of the capacity of about 80,000 ft. per day. Last year we did not operate for three months of the winter at all.

The outlook for operations in general in our district is quite bright. We anticipate a big market from the prairies. There are no large stocks of lumber on hand on the coast, and with a fairly active foreign demand we anticipate that prices will remain firm during the winter months, which is usually the quiet season of the year in the lumber business. We look forward to a good year in 1913.

From a large Vancouver firm:—Logging operations are not carried on to any extent here on the coast during the rainy winter months. In fact, our logging season extends over the spring, summer and autumn months, and the log hauling is done by machinery, or, to be more explicit, by donkey engines equipped with wire cables, the use of horses in connection with coast logging operations being practically a thing of the past. The bulk of the lumber manufactured at British Columbia coast points finds a market in Alberta, Saskatchewan and Manitoba. In view of the bountiful crop which has just been harvested throughout the Prairie West, it is evident that the lumber business in British Columbia will be in a healthy condition throughout the coming year.

We will manufacture about 20,000,000 feet of lumber the coming year which will be about 10 per cent. greater than the past year.

Logging on the coast is done more largely during the summer months than during the winter months, the rain interfering with the winter operations more than during the summer.

We are now running our mill night and day on account of the large prairie demand which we think will continue throughout the year on account of the large crops which have been realized. The outlook is very promising.—The Small & Bucklin Lumber Co. Ltd., New Westminster, B.C.

Our conditions are entirely different from those of eastern Canada, and our logging camps are operated during the winter unless shut down temporarily for a few weeks in January on account of cold weather or snow. We expect to operate our camps up to the middle of December, and will probably shut down until the middle of February as the weather is usually unsuitable for logging during the early part of the year.

We expect to cut about one hundred million feet next year, and think the market should be sufficient to absorb the output of the mills next year.

The United States mills have now sufficient market on their side of the line to keep them employed, and they are not using our market as a dumping ground, so that conditions should be very much better next year than they have been. The trade, however, will not be in a satisfactory condition until the tariff is changed so as to give proper protection during seasons of bad trade in the United States, or otherwise remove the tariff entirely, so that we have access to their market, and they to ours.—E. H. Heaps & Co., Ltd., Vancouver, B.C.

Will Enforce B. C. Marking Act

G. D. McKay, Provincial Timber Inspector, B.C., reports that after due consideration he has decided to enforce the "Marking Act," and more especially Section 90, which requires that all persons operating logging camps must first provide themselves with a stamp or stamps. The stamp or stamps will then have to be registered, and will conform with the class of land upon which they are operating, as per schedule following:

No. 1 is for license timber, and timber cut from this class of land must be manufactured in the province, as per part 10, of the Forest Act.

No. 2 is leashold timber, and is subject to the same regulations as No. 1 .

No. 3 is old crown-granted timber, and these lands are subject to sub-section 2, section 58, Forest Act, and are exportable under schedules 1 and 2 of that section.

No. 4 is crown-granted timber, after the 7th day of April, 1887, and prior to the 12th day of March, 1906. These lands are subject to a royalty of 50 cents on the thousand,, and are exportable.

No. 5 is crown-granted timber, 1906 and later, and is subject to a royalty of 50 cents on the thousand. This timber must be manufactured in the province.

No. 6 is handlogger timber, and is subject to the Manufacturers' Act, page 10.

British Columbia Timber Markets

Hereafter any person applying to register a timber mark will be given a mark, as follows:

For License Timber

1—A letter of the alphabet, other than I, O. X, Y, Z, followed by a number between 1 and 100. For example, "A 6." Start in F 1.

For Leasehold Timber

2—A number between 1 and 100, followed by a letter of the alphabet other than I. O, X, Y, Z. For example, "6 A." Start 1 H.

For Old Crown Grant Timber

3—A letter of the alphabet other than I, O, X, Y, Z, followed by a number with a crescent beneath. For example, "A 6." Start in K 1.

For Crown Grant Timber

4—A letter of the alphabet other than I, O (April 7,1887, March 12, 1906), X, Y, Z, followed by a number with a bar beneath. For example, "B 7." Start in L 1.

For Crown Grant Timber, 1906 and Later

5—A number followed by a letter of the alphabet other than I, O, X, Y, Z, with a crescent beneath. For example, "2 B." Start in 1 N.

Handlogger Timber

6—Either of the letters X, Y, Z, with a number. For example, "X 7." Start in X 1.

Forest Conditions in Quebec Province

How the Forest Branch has Secured Co-operation of Lumbermen in Preservation of Timber Resources—Plans for the Future

By G. C. Piche*

THE province of Quebec has had since 1909, a forest service and even a forest school, so as to recruit the necessary personnel. I believe that the other provinces will not be long in following the example of British Columbia in establishing a forest service, as they have also very large forests to preserve, and a forest service composed of competent engineers is absolutely necessary in our days, to administer the forest domain properly.

In the first place, in Quebec, we began by making a proper classification of the lands that are still vacant in our province. This is no small undertaking as we have over 200,000,000 acres that are not occupied by settlers. Of this, an immense proportion is not agricultural, and perhaps not more than 15,000,000 acres are fit for cultivation. Owing to the steady advance of prices of timber during the last decade a great number of persons had taken advantage of the settlers laws to purchase lots on which they were cutting the timber without fulfilling the conditions of their location tickets.

G. C. Piche, Chief of the Forest Branch, Department of Lands and Forests, Quebec, whose address before the recent Forestry Convention created much interest.

Selection of Lands

We have now finished the selection of the lands that are agricultural and non-cultivable in two counties, those of Bellechasse and Montmagny on the south shore of the St. Lawrence, and this summer we have had 14 parties working in the adjacent territories. It is the intention of our government to pursue the classification vigorously.

As soon as we have completed this task, we will begin the inventory of our forest resources. In the territories under license to cut, we leave the inventory to the initiative of the licensees. Already some have started this work, and I may name the Laurentide Paper Co., the Riordon Paper and the Riviere Ouelle Pulp Co., which have had their limits cruised and mapped out by experts and who also employ foresters. The inventory of the resources of the vacant lands will enable the government to dispose of the non-agricultural sections for the best use of the people.

We pay particular attention to the control of the logging operations made on timber berths. Our inspectors and rangers take special pains to see that all our regulations are complied with as rigidly as possible, i.e., that all trees are cut according to the diameter limits prescribed for each species, that the stumps are not cut higher than 18 inches above the ground, that all merchantable timber is cut into the tops up to 6 inches, in a word that the cutting is made in a manner as economical and profitable as possible to both the province and the lumberman. This means that in many circumstances our field men have to use discretion; but I may say that before we allow an exception, we always make a serious study of the case, and we are often accused of being stubborn, or hard to convince. Do not believe that all these reforms have been realized without some discussion. In many instances, it was only after the imposition of severe penalties that the men would conform themselves to our demands. But thanks to the help of the limit-holders, who have interested themselves in our efforts, we are now in a position to say with just pride, that the logging operations on the Crown Lands of Quebec are conducted economically, and that all that is merchantable is used of each tree that is cut, and this is as much as it is possible to do it under the local conditions.

Much Still to Accomplish

We have yet great progress to make. It is possible to reduce still greatly the quantity of waste—which does not exceed on an average of 20 per cent. of the cut—but this will come with the increase in price of the lumber, with the better facilities of transportation and with a more economical handling and use of the small logs at the saw mills.

We have still to find a way of disposing of the debris of the logging, but as this question involves too much expense, we prefer to make serious experiments before adopting any measure in this direction.

It will also be necessary to find a method for lumbering all the trees that are now growing in our forests. Owing to the difficulties of driving, most of the hardwood trees are left standing with the result that a great portion of the forest is not yielding any return, and the forest type is being modified almost completely after the exploitation. It is the ambition of the forester to bring the forest to a productive capacity as high as possible and to leave it after each cut in a better state than before. For many years it will not be possible to treat our forests as they should be, but we ought to lumber them in a better manner and to maintain at least the production of the valuable species to prevent the impoverishment of the cutover lands by the intrusion of inferior trees. This will necessitate some sacrifice, but will be fully repaid in the long run. This is specially true of the operations of pulp and paper companies which should cut more of the balsam in order to increase the proportion in spruce of their future tenements.

These results will only be obtained by a true co-operation of the forest service with the lumbermen. Our interests are mutual and we should work together to find means to make use of the hardwoods and of the inferior species, so that the future forest will be more productive, and will have a greater proportion of the best trees. To give you an idea of the results that could be obtained by a proper management of the limits presently under license in Quebec, I may say that the present cut of about one billion feet could not be increased by more than fifty per cent. under the present methods of lumbering, without endangering the future, yet it would attain if the 45 million acres that we have in license were treated according to forestry principles, ten billion feet per year, and if I translate this into revenue, instead of yielding to the Crown as it does now, a little over one million dollars in stumpage, it would give a return of ten times that amount.

The Log Scaling Problem

It is part of our duties to look after the control of the scaling of logs. This operation is very delicate and serious as our stumpage revenues are based upon the reports made by the scalers. These scalers, all appointed by a board of examiners, are under oath, and give fairly good returns. However, we have a body of rangers and inspectors, which numbered 115 last winter to check their work. We feel that we are getting all that is coming to us and the returns that are made are quite accurate.

This is not a bold assumption, but a statement based on my experience both as an employee of a lumbering company and as chief of the forest service during several years. I believe we owe this compliment to our lumbermen that they are conducting their operations in a very honest manner and that they are eager to do what is right and proper.

A special service, independent of our organization, has charge of the fire protection. Thanks to the co-operation of our lumbermen, who have assumed the charge of protecting their respective holdings since 1906, we have not to lament the loss of much forest through fire. The lumbermen of the St. Maurice River basin have recently formed themselves into a protective association. It would be unjust to the other provinces to say that the results obtained are due completely to our organization, but we feel that our efforts are being well rewarded, and the money expended in that direction is just as well invested as that paid to insurance companies.

Though our province is one of the richest in forest, we have many sections, particularly in the old villages, that are deprived of any timber growth. To obviate this scarcity, the Honorable Mr. Allard had a special law passed to permit the creation of special reserves known as township forest reserves, in which we would allow the farmers to cut a specific quantity of timber for their personal use. Each year a new area not exceeding one-twentieth of the reserve is opened, where they are allowed to cut under the direction of a warden, the quantity allotted to them. We charge them one stumpage due, that is, just enough to meet the expenses of the

*Address delivered before the recent convention of the Canadian Forestry Association.

system. We have now 120,000 acres under such reservation. Three township reserves were under operation last year, and the results have been so satisfactory that we cannot meet immediately all the demands that we receive from every section of the country. We will have by the end of the year about 200,000 acres set aside for this particular purpose.

Prevention of Waste

A good deal of the land that has been cleared since the opening of the province has been converted into waste either through fire or wrongful exploitation. According to the census we have over 2,500,000 acres in unproductive lands that will grow only a forest crop. As these lands are in the hands of individuals, we have started to encourage their reforestation. Our first step was to establish a forestry nursery at Berthierville to furnish the necessary stock. We have purchased some land near Lachute, composed of shifting sands that were beginning to cause great damage to the adjoining farms, last May we planted 25 acres of this as an experiment. The results obtained, up to the present are very satisfactory and the conversion of these dunes into forested land will be pursued this autumn. We will continue this work at other points, so as to encourage private initiative in this line. Several requests have already been received and the plants were furnished at half price. We will have several lecturers travelling the province during next winter inviting the farmers to put into value their waste lands and take better care of their woodlots.

The educational side in forestry has not been neglected by our government. As early as 1905, Sir Lomer Gouin sent two young men to study forestry at Yale Forest School, and on their return a forest service was organized, then in 1910 the Quebec Forest School was created with the specific object of recruiting a competent personnel for the administration and management of the forest lands belonging to the Crown or private individuals. The government gave a subsidy to Laval University for the establishment of the school, and each year ten scholarships are allotted to the first ten in a public contest. The total attendance at the school during last year was 40. At the contest which took place on August 19th last, 21 candidates were present.

It will soon be necessary to organize another school for the training of the forest rangers, and this will be done as soon as possible.

Preventing Fake Settlement

We have also to look after the repression of the frauds made on lots sold to settlers. To give you an idea of the work done, I will say that we have collected during these last four years nearly $225,000 in penalties imposed on timber cut illegally and thousands of sales were cancelled owing to the lack of improvements on the lots. A very severe inspection is made each year and no timber can be purchased or shipped without being covered by an affidavit which is certified to by one of our rangers. The result of this control has been a great reduction in the number of lots sold each year. Speculation or timber robbery is still going on but it diminishes every year.

We must confess that we have not been able to do much in the technical line partly because we had not the time for the necessary help and mainly because we thought it more rational to preserve first what was left of our forests. The next move should be to increase more and more the utilization of our forest resources. To do this and carry the other articles of our program it will necessitate a greater appropriation, which I believe our government will give us, and competent men whom we are now able to obtain through our school.

Quebec Cullers Report

The following comparative statement of timber, measured and culled to date, is furnished by the Supervisor of Cullers' Quebec, under date of Oct. 3rd:

	1910 Cubic Ft.	1911 Cubic Ft.	1912 Cubic Ft.
Waney White Pine	479,120	716,520	1,016,640
White Pine	10,720	10,680	1,760
Red Pine	21,920	27,720	12,200
Oak	222,200	69,400	87,000
Elm	246,800	221,680	275,520
Ash	1,360	120	520
Birch and Maple	40,680	62,320	38,640

Forestry Department Source of Profit

The annual financial statement of the Province of Quebec shows that the Department of Lands and Forests contributed $1,658,457 to the provincial revenue. The cost of administrating this department amounted to $316,455. A very few years ago this department was not even self-sustaining, but the remarkable development during recent years in connection with the pulp, paper and lumber industries has made it a fruitful source of revenue.

Personal and Trade Paragraphs

The Geo. Webster Lumber Co. moved their general and accounting offices to 21 Besse Place, Springfield, Mass., on October 2nd.

Mr. W. Price, of Price Bros. & Co., Quebec, P.Q., has been offered the position of chairman of the reorganized Quebec Harbor Board. It is believed that Mr. Price will accept the position.

At the adjourned annual meeting of the directors and shareholders of the Grand Trunk Pacific, held last week in Montreal, John R. Booth, head of the big paper and lumber mills at Ottawa, was elected a member of the board of directors.

W. H. Rowley, president of the E. B. Eddy Company, has been mentioned as a probable successor to Senator Frost on the Ottawa Improvement Commission. The appointment is made by the Government and no final decision has yet been announced.

A. D. McRae, vice-president and manager of the Canadian Western Lumber Company, and who also looks after the Mackenzie-Mann interests on the Pacific coast, has been gazetted honorary colonel of the Duke of Connaught's Own Rifles, a Vancouver regiment.

Mr. E. S. Jenison, formerly with the Henion & Hubbell Company, of Chicago, Ill., has been appointed manager of the Pump Department of the Canadian Fairbanks-Morse Company, Limited, who are now exclusive sales agents in Canada for the Triplex and Power Pumps, as well as the other lines manufactured by the Goulds Manufacturing Company, of Seneca Falls, N.Y.

Edgar W. Day, president of the British Trusts (Ltd.), of Edmonton, Alta., capitalized at $500,000, who returned recently from a trip of 800 miles by wagon into the Peace River country of northern Alberta and British Columbia, reports that there are hundreds of millions of feet of commercial timber in the region north and west of Edmonton. He was accompanied by W. E. H. Carter, of Toronto; his son, George Day, and a guide.

Mr. Roy L. Campbell of the Faculty of Forestry of the University of Toronto has recently been appointed to a post with the Department of Lands, Forests and Mines of the Province of British Columbia. Mr. Campbell, when taking up his new position at Victoria, will seek to interest the press, boards of trade, schools and in fact the people as a whole, in methods for the utilization of the forests which will increase rather than deplete the revenue of the province from this source.

Sir Lomer Gouin, premier of the Province of Quebec, accompanied by Hon. Mr. Decarie, provincial secretary, Messrs. L. P. Berard and Sidney Small of Toronto, under the guidance of Col. A. D. Davidson, inspected the Fraser Mills at New Westminster recently. Sir Lomer expressed himself as surprised at the magnitude of the mills and told Col. Davidson he doubted if there was another mill of equal size and such modern equipment in Canada. Sir Lomer took a keen interest in all the details and seemed to thoroughly enjoy watching all the workings of the plant.

Mr. Robert Bruce, of the firm of A. Bruce & Company, Glasgow, Scotland, has been spending a few days in Toronto and is now on his way to the West. Messrs. A. Bruce & Company are the builders of the plant at Fort Frances, Ont., for treating railway ties. Mr. Bruce intends travelling extensively in the west with a view to choosing one or more locations where his firm will build plants similar to the one at Fort Frances. They intend to go into this business on a large scale in Canada. The firm have had 60 years experience in England and Scotland, with a special pressing and creosoting process for timber.

Sir Ronald Lane, of London, Eng., president of the Peace River Trading Co., a subsidiary of the Western Canada Land Co., which owns more than 300,000 acres of land in Alberta, who was in Edmonton recently with a party of 20 British capitalists, has sent scouts into the Peace River country to gather information regarding the timber, mineral and agricultural resources of the district. The company, which already has trading posts at Lesser Slave Lake, Peace River Crossing, Dunvegan and Vermillion, expects to extend its operations to the Arctic circle. Trading with the Indians on a cash basis, retailing supplies and freighting, will be the chief business and in addition to this it is expected to install sawmills in various parts of the north country.

Hamilton, the manufacturing centre of Canada, has surpassed itself in the preparation of an excellent booklet, dealing with its numerous advantages and attractions. Both pictorially and artistically the booklet reaches a high standard, and the facilities enjoyed by this thriving city are brought home to the reader in terse and forcible language. An excellent map accompanies the booklet.

Jocko Limits Bring Record Prices

The timber berths known as Jocko No. 1 and Jocko No. 2 which were recently offered for sale by tember by the Ontario Government were secured by J. J. McFadden of Renfrew, Ont., the highest tenderer. Mr. McFadden's tender was as follows:

Jocko No. 1	$13.26	per 1000 for	pine	and	$2.00 dues
Jocko No. 1	3.00	per 1000 for	pine	and	1.00 dues
Jocko No. 2	12.10	per 1000 for	pine	and	2.00 dues
Jocko No. 2	3.05	per 1000 for	spruce	and	1.00 dues

The limits cover 25 square miles each and are situated in the townships of Garrow and Lockhart adjacent to limits belonging to the Hawkesbury Lumber Company. Mr. McFadden's tenders were considerably above those of the next highest. They are also the highest that the government has yet secured for the sale of timber.

It is interesting to compare the prices with those of a few former sales. In July 1907 a sale was made of timber on Franklin Island, Georgian Bay for which Mr. McGibbon of Sarnia paid $12.26 per M. bonus and $2 dues. Berth 22-10 a little back of the Soo was sold by the Government to E. B. Foss of Bay City, Mich., for $10.52 bonus and $2 dues. In 1910 an important sale of timber on the Mississaga reserve was made. At this time Booth and Shannon, Biscotasing, paid $5.50 per M. bonus and $3 dues for white and red pine. James Munro, Pembroke, Ont., paid $8.55 and $2 dues for red and jack pine and spruce. W. B. Russel, Toronto, paid $10.55 and $2 dues for red and jack jine and spruce. R. Friar, Pembroke, Ont., paid $11.37 and $2 dues for white pine. J. G. Forgie, Pembroke, Ont., paid $10.55 per M. and $2 dues for white pine and $8.55 and $2 dues for red and jack pine. A sale of damaged timber in 1909 brought the government $8.05 and $2 dues.

As a guarantee, Mr. McFadden is required to deposit the sum of $25,000 on each tender. Clauses in the call for the tenders mentioned that tenderers must state prices, (1) on condition that they cleared the ground of all debris, and (2) that the debris be left on the ground. Mr. McFadden quoted 50 cents a thousand higher than the above figures on each tender if the debris be left on the ground, but the Minister of Lands, Forests & Mines accepted the lower figure involving the removal of debris.

Boom Company Loses Action

The action recently brought by the Rainy River Boom Corporation against the Rainy Lake Lumber Company to recover certain sums of money for booming, sorting, rafting and driving the defendant company's logs in the Rainy River during the years 1906 and 1907, was recently dismissed with costs by Chief Justice Mulock.

The plaintiff company, incorporated under Minnesota laws, was authorized, by its charter, to erect booms in the Rainy River and to charge tolls for booming logs. The defendant company, in common with others, floated its logs down the Rainy River, this being the only practicable method, and plaintiff's booms, which were on the Canadian side of the river, were of some assistance in separating their logs from those belonging to others. The Rainy River is a navigable stream, and the international boundary between the United States and Canada runs up its thread, the stream being free to the citizens of both countries under the Ashburton Treaty. The plaintiffs' claim was based on implied contract and on the right under its charter to collect tolls.

Chief Justice Mulock held that there were no circumstances from which any implied contract to pay could be inferred, and that the plaintiffs could not force their services on defendants. That the plaintiffs' erections in Canadian waters were in violation of the treaty and wholly unauthorized, and that the plaintiffs had no right to divert the defendants' logs into foreign territory and seek compensation for services in respect thereof. That the clause in plaintiffs' charter permitting them to levy tolls was in breach of the Ashburton Treaty, and, therefore, ultra vires of the State legislature of Minnesota.

Record Timber Output in B. C.

The Provincial Scaling Department of British Columbia announce that the timber scaling figures for September reached the high mark of 81,600,000 ft. for the coast district. This represents the amount of timber marketed in the Vancouver district. The figures for the interior have not come in yet, but they are expected to total at least 20,000,000.

The scaling fees for the same period were $4,762.91 as against $3,000 last September. For August the fees were $6,000. This represents the fees for timber transfers several months back and does not correspond with the scaling figures of September.

The Timber Trade in Great Britain

Remarkable Activity in Shipbuilding—Good Demand for Canadian Wood Goods—Labor Situation More Promising

(Special Correspondence of the Canada Lumberman)

Glasgow, Oct. 3rd.—Since last report the general tone of this market has improved very much and the business passing in Canadian timber and lumber is quite satisfactory. Not a single cloud is at present on the horizon and consequently the industrial outlook is exceedingly promising for some considerable time to come—we in this country think—and not without justification that Great Britain has had sufficient labor troubles to last for many a long day. The freight situation is now the only difficulty. Not for many years has such a boom been experienced in the shipping world. Little more than a year ago the Clyde, the Tyne and other ports had many vessels laid up for a long spell through want of freights or the unremunerative rates offered. Now it would be impossible to find idle tonnage at any port in the United Kingdom.

The reasons for this bounding prosperity in every class of the British mercantile marine are not far to seek. Notwithstanding the recent serious labor troubles, with, however, only temporarily checked trade expansion, the scope of employment of British steamers has been extending to every quarter of the globe. Not only have freights generally continued firm, but the extraordinary demand for tank steamers or oil transportation has resulted in many vessels ordinarily employed as freight boats having huge cylindrical tanks fitted in their holds, so that they could be diverted into the oil trade as carriers of oil in bulk. The result of this great boom in freights is a still greater boom in shipbuilding. Undoubtedly disappointment was felt in many quarters that the launches on the Clyde for the half year ending June 30 were not the greatest in tonnage ever realized. The actual total was 289,641 tons, but it is now well known that by December, 1912, the tonnage launched will be the largest in the history of any year of this very important trade.

In this connection it is important to note that all the yards we flooded with orders for new construction and shipbuilders have found it practically impossible to guarantee delivery by any given date. The price of new vessels has advanced from £6 to as much as £8 per ton and still the demand shows no signs of slackening.

The boxmaking trade is very busy but buyers are finding it difficult to get supplies of spruce. In fact, never in the memory of the writer have stocks of this wood been so light. Every little lot arriving per steamer at the docks is quickly bought up at full prices.

Canadian up spruce deals: The demand is very strong, prices range from £8 12s 6d to £8 14s for 3-in. x 6-in., 3-in. x 7-in. and 3-in. x 8-in. with a few 3-in. x 9-in. included in the specification. 3-in. x 5-in. are selling steadily at £8 5s per standard. Very little Riga spruce is now coming into the market. This fact should further help the Canadian variety.

Lower port spruce deals: These can also find a ready market, but only very small lots are coming to hand by liners, prices are as follows: 3-in. x 11-in. and up, 16d; 3-in. x 10-in., 14¾d-15d; 3-in. x 9-in., 14½d-14¾d; 3 x 8, 14d; 3-in. x 7-in., 13½d; all ex-quay Glasgow.

First class Quebec birch logs—These are again in very strong demand, since last report, the very heavy stocks held here have been all sold. The market is therefore bare. Any lots arriving will be well sold at increased values. Present prices are, 14-in., average, 1s 9½d to 1s 10d; 15-in., average, 1s 10½d to 1s 11d; 16-in. average 1s 11½d to 2s; 18-in. average, 2s 1d to 2s 2d; all ex quay Glasgow. Quite a number of large buyers are at present in the market for 14-in., 15-in. and 16-in. average and nothing can be offered them from stock.

Quebec merchantable birch planks—The position of these is similar to last report, viz.: practically nothing arriving and very strong enquiry. All sizes are in request from 1-in. thick upwards to 4-in. As much as £12 to £12 10s c.i.f. Glasgow can be got for an average specification. It is thus evident that any consignments sent to this market will be quickly realized.

Quebec white oak logs—The demand is very active and the consignments that have arrived here have been all sold at very fair prices, for 5½ ft. cube the prices run from 3s 10d to 4s per cubic foot, c.i.f. Glasgow. Second class wood is also selling pretty freely, although a little is still held in first hands. In the writer's estimation Quebec oak logs will be well held and the tendency is for prices to go very high. The railway companies have placed large orders recently and it is known that they will be in the market shortly again for increased quantities. They have, for sometime, been holding off buying owing to the various strikes that have taken place, but now that these are over they have again to supply their wants. The railway companies have all shown increased traffic returns and this means increased freight accommodation both in wagons and carriages.

First class rock elm continues to realize high prices. The ship-

builders are buying up all the lots that come into the market and it is quite well known that sufficient quantities are not being imported to keep this market going. Consignments at any time will be welcome. Prices range from 4s 3d to 4s 4d per cubic ft. c.i.f. Glasgow for 35 ft. average 2nd class. Elm is also easily sold at high prices.

First class waney pine—The demand for this wood is improving and quite a quantity has recently been sold to one of the Clyde shipbuilders. Prices, however, continue on the low side and are about 5s 4d per cubic ft. for say, 27 ft. x 20-in. average, the same remarks apply perhaps more to 2nd class.

First pine deals—Fair lines have been sold ex the yards and also from the quays. Prices are steady with a strong tendency to advance for 12-in. and up x 3-in. £40 10s is being quoted c.i.f. Glasgow.

First pine strips—The demand for these is not so good. Prices range from 3s 4½d to 3s 6d per cu. ft. ex quay. Increased quantities of Californian strips are being imported and these are being retailed at 2s 9d to 3s per cu. ft. ex quay. These importations are telling very much on the Quebec variety. Consignments of strips should be carefully avoided for sometime to come.

General remarks—Practically all kinds of Canadian timber and lumber are in good request. The shipbuilding and allied trades have as much work on hand as will practically last for a year. United States lumber is also selling well. If we have no further labor troubles, this year should show a record turnover in all businesses, and especially in the timber trade of Glasgow.

Enterprise at Ottawa

One of the chief attractions at the Central Canada Exhibition at Ottawa this year was the "Boosters Industrial and Floral Parade" put on the first evening of the opening of the exhibition. Over five miles long, it showed to Ottawa residents as well as to thousands of visitors to the fair, that the Federal Capital has some really big industries which were splendidly shown up by the different floats representative of the manufacturing and business interests. It was the greatest demonstration of civic spirit and industrial life ever made in Ottawa and the costly and attractive floats and long array of commercial wagons was a credit to the promoters. This is, we understand, to be made an annual affair. The parade was of especial interest to the readers of the Canada Lumberman, in that the first prize for the best and largest turn out, a silver cup donated by Mr. T. Frank Ahearn, was won by the Estate of James Davidson, the well known lumber manufacturers. That a lumber manufacturing firm should carry off first prize in a parade such as this speaks creditably for the enterprize and progressiveness of the management. The firm had 29 wagons in the parade and every wagon was fitted up to represent the different lines turned out. Doors, sash, dressed lumber, refrigerators, boxes and box shooks were all represented in the different floats. The accompanying reproduction of a photograph taken in front of the factory on its return, shows a portion of the team and the manner in which they appeared.

First Prize Turnout, Ottawa Boosters' Parade, Estate of James Davidson

An Important New Company at Toronto

The Webb Lumber Company, Limited, a new company formed in August last, have taken over the yards and planing mill of the Gold Medal Furniture Company on Van Horne street, Toronto, the latter company going out of the lumber business entirely. Mr. R. H. Webb, the head of the new concern, is a lumberman of wide experience, who has been for some years in charge of the lumber business of the Gold Medal Furniture Company and who prior to that, was engaged in the business on the Pacific coast. The company have made large additions to their planing mill and are thoroughly equipped to handle all kinds of interior finish and planing mill work. One of the chief improvements is the equipment of all machinery with individual motors. No hemlock is used at all by this firm, only pine and hardwoods, as it is their intention to turn out only high class work.

The paper mill which is being constructed at Thorold, Ont., by the Montrose Paper Mills, Limited, is reported to be half completed.

Improvement in Trade at Glasgow

Edmiston & Mitchells in their quarterly timber circular, dated Glasgow, 30th September, report as follows:—Business in this market during the past three months has shown a very welcome improvement, more activity having been in evidence than at any other period of the year, not that trade has assumed actually brisk proportions—far from it—but the movement into consumption has expanded appreciably and gives hope of being at least maintained for some time to come. General trading conditions are fairly satisfactory, all the allied trades, with the sole exception of housebuilding, being comparatively well employed, and even as regards the latter a rather more hopeful feeling prevails, and some improvement is confidently looked for in the near future. Shipbuilders have continued extremely busy, entailing the necessity for large supplies of wood goods, and this is a source of demand that seems likely to exist on its present broad basis for many months yet.

Values all over have presented a very firm attitude, with a general tendency towards enhancement, due to the steady increase in freight rates, while the restricted nature of imports, together with the moderate stocks held on this side, have also had some effect on the higher trend of prices. It would seem that high-level mark has not yet been reached in the matter of freights, and such being the case, it is only natural to anticipate that values will further appreciate in sympathy.

The extravagant cost nowadays of some of the hitherto popular timbers has resulted in persistent endeavors being made to introduce cheaper substitutes, and that these have men with some measure of success is evident from the growing request for such woods as Californian yellow and sugar pines, Siberian pines, Gaboon mahogany, and various Japanese and Borneo timbers, while a corresponding shrinkage is observable in the demand for Quebec yellow pine, poplar, &c.

A prominent feature of the market has been the scarcity of American spruce, consignments of which have come forward sparingly and proved quite inadequate to meet the demands. Riga white deals have in consequence met with increased request, and the consumption of these has this year reached record proportions.

The Clyde Shipbuilding returns show that the output for the nine months amounts to 197 vessels of 472,706 tons, compared with 179 vessels of 429,878 tons in the corresponding period last year, and 226 vessels of 357,912 tons for the first nine months of 1910. There is every prospect now of last year's output being well exceeded. Orders for new work have been booked to a fair extent, and most of the yards have sufficient work on hand to keep them fully employed for a long time yet.

YELLOW PINE LOGS:—The import over the nine months to date amounts to 2,740 loads, most of which constituted deliveries against contract purchases. The consumption has not come up to expectations, as it was thought that, with shipbuilding so busy, good demands would be in evidence, but these have not materialized to

any extent so far. As it is, the consumption of 1,529 loads is not much better than that in either of the two preceding years. The stock on hand stands at 2,057 loads, and, if not heavy, is perhaps quite sufficient. Values are merely steady.

OAK LOGS:—A good demand has existed for first-class wood at firm values, and the stock of this nature in first hands is now practically exhausted. There is a considerable holding of second-class wood, which is meeting with a limited outlet.

ELM LOGS:—Arrivals have consisted almost entirely of contract wood, and the few small consignment lots that did come forward were promptly sold at high prices. First-class rock elm of large square is very scarce, and shipbuilders are having difficulty in getting their wants supplied. Values are decidedly firm.

BIRCH:—Quebec—The import of logs was very heavy, but the consumption, on the other hand, has been exceptionally good, and there is no great stock on hand now. Values have kept surprisingly steady. Planks are scarce and values are firm. Low Port—Arrivals of both logs and planks were moderate in extent, and were all disposed of "ex quay" on arrival.

DEALS,&c.:—Quebec pine goods, apart from sidings, have arrived in moderate quantities, which is perhaps just as well in view of the apathetic demands in evidence. Sidings have come forward much too freely, and, meeting with little or no request, went into store unsold for the most part. A few sales of first quality broad deals have taken place, but at values not in keeping with shippers' ideas, the fact being that there is little call for these in the market, and buyers can only be induced by the naming of cheap prices. A fair demand has been witnessed for second and third quality 3-inch by 11-inch and up, of which there is no stock in first hands now, and values are rather firmer.

Very few consignments of spruce deals have come into the market, the little there was being easily disposed of at good prices, and the supplies on hand now are almost nil. Riga goods have no doubt come forward in increasing quantities and gone far to fill the gap.

Current quotations are as follows:

First pine deals—Broads, £39 to £43; 11-inch, £34 to £36; Ends and non-dimensions, £24 to £27.

Second pine deals—11-inch and up, £25 to £27; Ends and non-dimensions, £16 to £18.

Third pine deals—11-inch and up, £16 10s. to £18 10s.; Ends and non-dimensions, £13 to £14.

Red pine deals—9 and 11-inch, £11 10s. to £12 10s.; Narrows, £9 10s. to £10.

First pine sidings and strips—9 to 10-inch, £30 to £32; 11 to 12-inch, £32 to £34; 13 to 14-inch, £34 to £36.

Spruce deals—9-inch and up, £10 to £11; 7 and 8-inch, £8 to £9.

Lower Port pine and spruce—9-inch and up, £9 10s. to £10; 7 and 8-inch, £8 5s. to £8 15s.

A Forestry Students' Camp

By R. B. MILLER, M.F.
Professor of Forestry
University of New Brunswick

There has been a growing feeling on the part of the Forestry Department of the University of New Brunswick that they should have a permanent building on their lands, within walking distance of the college, so that students might have, from the first, the right setting for their profession.

The Engineering Department last fall decided that instead of paying someone along the Keswick for the privileges of a camp site and for clearing out lines for imaginary railroads that the camp might be very profitably transferred to the college lands. Such cleared lines could then serve admirably, at little extra expense, for roads, trails, and fire lines, while the whole tract would offer almost inexhaustible opportunities for carrying on all lines of surveying. And in the picture of this closer co-operation between the foresters and engineers loomed large a roomy log camp with great open fire-place, instead of musty, smelly tents, with no chance for office work to deaden the dull monotony of the inevitable rainy days—often a total loss to the student and a sore trial to the instructor.

The result of a combination of these two desires has now embodied itself in a log camp, on a good trail running to Corbett's Brook, less than three miles in a direct line from the college buildings. Being situated in between two brooks an abundant supply of good water is assured.

A party of fifteen men, about the middle of October, chose and began to clear off a place for the camp on a slight ridge well up from the brook. On this first day a few began felling trees on the flat across the brook and around the camp. As it was desired to have the inside dimensions sixteen by twenty feet this meant that the logs must be nineteen and twenty-three feet in length, allowing a foot and a half projection at the corners. Straight, sound fir logs were for the most part chosen, varying in size from ten to fourteen inches in diameter at breast-height. A few straight and over-mature popple were cut and all trees were marked before cutting so that too heavy a thinning might not be made in any one place. About fifty trees were required in all, and every man was found eager to fell trees but not so eager to clean up the tops and pile brush afterwards. In pursuance with good forestry regulations it was insisted upon that the crews cut off and pile all branches before taking another tree—a decided innovation to those used to the ordinary lumbering methods in New Brunswick. This lesson will no doubt be a valuable one for all classes of students and will give them an idea of how the woods should look after lumbering in a conservative manner, with proper slash disposal.

Most of the New Brunswick boys, engineers as well as foresters, have been raised near the woods and are excellent axemen, felling their trees to a nicety and 'sampsoning' them over with a short pole to the desired spot, when necessary, with the skill of veterans. Many haggled stumps betokened the work of the inexperienced but these men hung to the task, despite blistered hands, until their trees were either down or comfortably supported by four or five others.

After felling came the sawing up into proper lengths, and several were initiated into the mystery of cross-cutting with the saw without causing the other man excruciating agony. Crews were then put to peeling the logs which, in knotty timber, is no easy task until the proper kink is learned.

The work of felling and peeling proceeded for a few Saturdays with a crew of men varying in number from fifteen to thirty, from all departments. Some logs were then carried on the shoulders of

Forestry Students' Camp in New Brunswick

the men across the brook and up the slope—no easy task with green, balsam-covered logs. Three of the men, who had seen lumber camps erected, began notching the corners and putting the first logs in place. As the logs were quite large and had considerable taper, in order to keep the walls level, some had to be notched very deeply, and in many cases small drop logs had to be let in between. The work was carried on at intervals until, at Thanksgiving, the camp was three or four logs high.

During this short vacation it was decided to push the work more rapidly and three men went out and made a temporary camp across the brook, putting up the usual 'lean-to' tent used by the guides and lumbermen.

The camp outfit was taken out by pack-horse in true western fashion, with the famous 'diamond hitch' (learned from a New

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Brunswick guide) over all to advertise the fact that we were not 'tenderfeet,' even if we had never been west of the 100th meridian. The pack-saddle, by economizing with canvas girths and using straps of moose-hide, was constructed for us by the same guide at a cost of less than $10.00 and serves every purpose of the higher priced article for short trips. There are two ropes which accompany it, one about one-quarter of an inch in diameter and thirty feet long, and the other, used for the final hitch, a half-inch rope about 36 feet long (which seems of ample length the first time you see it).

With only three or four men working on the camp during this short vacation it was found impossible to carry big logs over the brook, although we found they grew perceptibly lighter after being peeled for a week or more. The ingenuity of the boys overcame this difficulty in short order. The broad girth of the pack-saddle outfit was passed around the breast of the horse (who knew more about the woods than we did, it proved) fastened in place by the smaller rope, and the long rope used as traces, being finally attached to a short spruce single-tree, with a long enough end left for a noose to take the place of logging tongs. By snubbing the ends of the logs and swamping out paths, enough logs were soon yarded for the rest of the construction work, and the walls soon brought up to a height of seven feet, which was considered ample. Rafters of round, peeled, spruce poles were then put up, about two and a half feet apart, and spiked to the side logs. The ones at each end of the building were made double, that is about six inches apart, so that the short logs forming the gable could be dropped down in between.

A tight sheathing of second-grade hemlock boards was then nailed on over the rafters and a layer of three-ply felt put on lengthwise, and the edges tarred, a roof warranted to last ten years or longer.

After levelling off the ground inside, sills of peeled logs were sunk about two feet apart and two layers of hemlock boards put down as a floor, the first layer of cheap material, the last surfaced on one side.

The chinking, or 'stogging' of such a camp is more of a task than appears at first thought. Moss was gathered from the high ground in the woods and carried in sacks to a place alongside the building, an immense quantity being required. This was pounded in with a tamp from the outside at first, but cold weather setting in, the rest of the camp was chinked from the inside.

The camp will become, in time, the center of a large field of future operations—the construction of roads, trails, and fire lines, telephone lines, of brush-burning, of thinnings and cleanings, of cutting of logs and cordwood, of surveying, mapping and estimating, and perhaps later of some experimental work in silviculture whose results may become an object lesson to owners of timber. The entire camp has cost not over $25.00 all told, and if Yale and the other graduate schools are hungering after demonstration forests of their own, which they can handle to get results and give their men training, we think we are fortunate, and the University of New Brunswick is fortunate, in finding such a tract lying at its backdoor and knowing that this camp is going to mean getting right down to the humus from this time on.

Such is, in brief, the history of the building of this camp which means to the foresters of the University a comfortable retreat for work and recreation. Not only has it given them some valuable construction experience not down on the regular schedule, and hence more valuable, but has, as its walls rose, log upon log, from the brown earth, built up that spirit of brotherhood and loyalty to class and school which we believe to be one of the strongest assets in the future. More than that, it has brought a little nearer to all that invisible spirit of the woods which the forester feels but cannot explain to others, that spirit which makes him a fighter and transcends salary or worldly honor and leads its recipient to struggle through muskegs and over mountains, along the unblazed trail—'a pioneer in a new profession.'

Lumbermen's Arch a Decorative Feature

One of the features of the decorations in Vancouver on the occasion of the recent visit of the Duke and Duchess of Connaught and Princess Patricia of Connaught, was the lumbermen's arch. It was a portico in the earliest style of Greek Doric architecture, and was a massive and attractive affair. Its base consisted of eight logs, 4 feet in diameter and 20 feet long. On top of these was a superstructure made of great beams and covered with split logs and shingles. Circular and cross-cut saws, peaveys and pike poles were on the arch. The feature was so very favorably commented on that it has been decided to re-erect the arch in Stanley Park as a permanent fixture. The committee of lumbermen who had the matter in hand consisted of J. Hackett, A. Cotton, Joseph Chew and F. Beecher.

The paper mill at Thorold, Ont., which is being erected by the Ontario Paper Company, Limited, is about half completed and the company are in the market for machinery.

Preventing Waste in Forest Products

Economy in Methods of Utilization—Education of Public to Use of Lower Grades—Co-operation the Great Requisite

By E. J. Palmer*

In approaching the subject of economy, it is necessary at the start to overcome a popular belief that true economy consists in the using of something that would either on the one hand be a total waste, or on the other hand be used to a much lesser extent, not taking into consideration the cost of such use.

If the cost of producing any article of commerce is greater than its value to the ultimate consumer, in place of its use proving an economy, it proves to be a loss.

Any operation proving to be a loss to an individual, is a loss to society as a whole, a natural product manufactured or produced in a useable form, has to show a profit to the producer in order to increase the wealth of the nation.

In considering forest products the majority of people are carried away with the belief that if a portion of our forest which has in times past been allowed to waste, can now be produced for consumption, that we are making a distinct gain and are increasing the wealth of the country to just that extent.

While it is true that it is not what a nation or individual makes, but what it saves, that constitutes its wealth, and with this in view, we as a people are making frantic efforts to make more from our forest wealth, but are losing sight of the fact that true economy calls for a profit to the producer.

Our forests are a vast heritage handed down to the present generation, to a large extent in trust, for the use of the generation that is to follow, and it is true that we should make every effort to conserve that wealth as much as possible, but must not lose sight of that fact that we have the present generation to serve, and our policy should be one that will not only conserve to the coming generation what rightly belongs to it, but will at the same time increase the wealth of the present generation, supply its demands and practise a practical economy in the handling of our forest products.

The waste in handling the products of our forests is enormous and a goodly proportion of such waste can be laid at the doors of the logger and sawmill man, but still the public is responsible for a considerable amount.

Educational Work Required

In order to permit the operators to practise greater economy that is practical, it is necessary that a great deal of educational work be done with the ultimate consumers of forest products. The consumer should be taught the difference in grades of lumber, should be shown why the higher grades cost more to produce, why it is waste to use a better grade than the work calls for, why long lengths of lumber should not be used when short lengths will do as well, in short the consumer should be drilled to the use of wood products without real waste.

With our present systems of handling logs in logging operations and with the nature of the timber to be handled, it is not practical to leave standing timber that is at present unmarketable, the fire risk being so great, and the cost of overcoming this risk by cleaning up brush, removing tops of debris, etc., being prohibitive; consequently it is necessary to remove at once all timber that is intended to be marketed at the one operation. It is therefore true that a great deal of useful material is left in the woods to be either destroyed by fire or decay.

If the public can be educated to the use of the lower grades of material, such as would be manufactured from the tops or small trees, or from defective trees, showing stain, shakes, etc., a great deal of material now left to be destroyed could be utilized, and a practical economy practised.

The manufacturers of wood and wood products must use the same energetic means of advertising as the manufacturers of wood substitutes and to my mind, the most important is to bring the public to the knowledge that it is a partner in the vast wealth of the country, and in increasing the use of wood and wood products they are increasing the wealth of the nation.

Under present conditions it is a hard matter to market much of the material now going to waste, the lumber manufacturing plants are largely built with an idea of handling large material—the machines used are of a heavy pattern, too slow and clumsy to handle to advantage small sized logs, but the time is coming, in fact is now here, when manufacturers in planing mills, must plan on handling not only the larger sized timber, but also on manufacturing short and small timber, either in the main plant or with auxiliary rigs.

Smaller sized timber can now be manufactured to a profit with suitable machinery, trees down to 9 in. in diameter at the top should

*Address delivered before recent Canadian Forestry Convention.

be utilized in the manufacture of lumber—this will result in a great economy.

The Use of Lower Grades

The manufacturers of lumber, assisted by the Government, should bend every effort towards educating the consumer to use a lower grade of lumber for many purposes, and should also invent uses for lower grade lumber in cases where other material is now used, when the tops of trees, strained and conkey logs can be utilized, a further great economy will be practised.

Preceding every logging operation should some the pile and pole outfit, and all this class of material should be removed before the larger timber is fallen. If the piles and poles are left until actual logging operations commence, much of the smaller material is broken and damaged by the larger timber.

There is a growing foreign market for poles and piles, and I think that the Government should encourage the exportation of this class of material, under proper supervision. There is no further manufacturing or labor spent on this class of product after it leaves the province and, with but a limited market in the Dominion, steps should be taken to push the market in other countries, as the bulk of the small cedar and fir trees are left in the woods, after logging operations are over to be destroyed by fire. A great economy can be practised in the utility of this asset.

The farmer and settler should be educated to leave the timber on his claim alone until he is in a position to absolutely clean up the land and put it under cultivation.

The people should be taught to think of timber in the terms of dollars and cents, so that it would be no more likely for a man to destroy standing timber than it would be for him to throw away a handful of dollar bills.

Practical economy can only be practised by the co-operation of all concerned, that is—the operator, the manufacturer, the consumer and the Government. Any economy that does not mean a profit to the operator and manufacturer is not practical and will not prevail.

In the collection of taxes and stumpage, the Government will be enabled to further practical economy, by making it possible for the operator and manufacturer to handle much material that is now going to waste. As long as the tax and stumpage on Government land is the same on large sound merchantable timber as it is on the small or unsound unmarketable timber, the operator is bound to leave the latter in the woods, as it would not be practicable to remove same, nor would it be an economy if same was removed at a loss.

In a word, to secure greater economy a market must be established for the material so saved. The operator and manufacturer with such large supplies at their back, are not very keen to establish such a market, and it is for the public and for the Government to create a demand for material that is now wasted.

Creating New Demands

There are certain operators and manufacturers who are farseeing enough to realize that a demand can be created for the material now going to waste, and are arranging their plants accordingly. These firms are making every effort to bring before the public the merits of wood paving blocks, the necessity of cheaper and better wood preservatives, the foolishness of using high grade material where cheaper material will do as well, such as forming for cement buildings, but these firms are meeting a very serious competition from firms who are logging in the old fashioned way, taking off the land nothing but the best of the timber, leaving all of the small growth, rough timber, defective trees, to be destroyed by fire after their operations are over.

These firms have no interest in the timber further than to get the best grades at the cheapest possible prices, their better grades of logs costing them no more than the logs of the firms who are trying to log the land clean, who consequently get a large percentage of cheaper grade material, and they are prepared to sell a high grade of material at the same price as the other firms offer a lower grade. This seems at first glance a gain to the consumer, but on second thought you will see that it is no gain to the consumer, who is using a good grade when a lower grade would do just as well, necessitating the waste of just that much of lower grade, and the loss to the country of that much natural wealth.

This competition is unjust, and prevents a great deal of true economy in the utilization of forest products. This competition can only thrive where no proper supervision of logging operations is carried on. It should be incumbent upon the operator to clean the land of all timber that can be marketed under existing conditions. It is the peoples right to insist that this be done—they are interested in this forest wealth, and the Government should see that no undue waste is made in handling the estate of the nation.

With an immense market on the prairies, right at our door, ready to absorb a large amount of material now going to waste, some steps should be taken at once to enable the manufacturer to get this material to the consumer with a margin of profit to himself. With the opening of the Panama Canal, and with the new railroads now building to the coast with easier grades, think if representations were made, that the railroads would be willing to co-operate toward the end of utilizing much of the forest products now going to waste, by establishing cheaper rates on low grade material. The heads of one of our transcontinental railroads recently made a statement to the speaker that the lumbermen of the Pacific coast were annually burning up 50,000 carloads of lumber on which they should be making a profit, and on which the railroads would be earning freight, and personally I think that this is a conservative estimate.

The Government, standing as the representative of the people, should insist upon the proper handling of our forests, by persuasion, by education, or by force, and the great annual waste (a loss to the nation which cannot be replaced) will to a large measure be stopped.

Practical Steps Suggested

Some practical steps towards this end can be instituted at once:

1. The manufacturers, with the assistance of the Government should educate our city engineers and councils to the use of wood pavements. The best pavement in the world is wood pavement when the blocks are properly selected, properly treated and properly laid.

The best wood paving blocks are manufactured from small close grained timber. A large quantity of this material can be secured from small second growth timber now left in the woods.

2. Manufacturers should be induced to pay more attention to the drying of cedar shingles: too many of them pay more attention to the under weight, than they do to the life of the shingle, and the shingles are cooked to death in the kilns. There is no better roofing material in the world than red cedar shingles, when properly manufactured and properly dried, and if dipped when laid or properly painted, they are far more superior to any of the patent roofings now on the market, and just as nearly fireproof. Vast amounts of No. 2 cedar is now left in the woods, suitable for this manufacture of shingles. The market for shingles can and should be extended, and by judicious advertising, in which the Government should assist, and this can be done with very little delay.

3. The market for poles and piles should be exploited at once. Treating plants should be erected for the handling of this class of material. The Government should aid in extending the export trade in piles and poles.

4. In all government works, where lower grade material can be used to as good advantage as higher grade material, shorter lengths used in place of long lengths, etc., specifications should be so drawn up. For instance a great deal of common cedar could be used in the shape of mud sills, blocking, etc., for which fir is now specified. This can be manufactured out of a rougher grade of cedar log which now largely goes to waste.

5. A systematic campaign of advertising should be carried on by all manufacturers, and the assistance of the public should be secured in the utilization of odd and short length material, lower grades of material where they will answer the purpose, and new uses for timber demonstrated to take the place of wood substitutes, and remember that every thousand feet of logs utilized by busy manufacturers into lumber means $10.00 distributed to labor.

Indispensible to Lumbermen

A twelfth edition of Baughman's "Buyer and Seller, the Handy Book for Lumbermen," has just been published. Since its last appearance this work has been thoroughly revised and many important additions and alterations have been made. The information has been so carefully compiled and the explanations given are so lucid, that it is an easy matter even for a layman to find the information he requires. For anyone engaged in the lumber trade the book is of great value. Baughman's Buyer and Seller is published in the large or desk size and a smaller edition for the pocket. The book is of inestimable value to lumbermen, carpenters and builders and may be secured fro H. R. A. Baughman, Indianapolis, Ind., U.S.A.

Lumber manufacturers in the province of New Brunswick have been greatly handicapped during the present year on account of the excessive freight rates upon lumber to the Old Country and to the markets in the United States. It would not seem reasonable that these rates should continue without corresponding increases in the price of lumber and the manufacturers were confident that such an increase would come about during the present year. That their faith was justified is illustrated by a letter recently received by the Canada Lumberman from a prominent firm of manufacturers of St. John, N.B., who say:—"As we told you recently we feld that the English market would advance. Our faith has been justified and we have reached about last year's prices for our deals. If things hold as they are now, without any great strikes or political outbreaks in either England or the United States, we ought to have a good year in 1913."

Topographical Surveys and Logging Plants

By H. P. Henry*

At the best, logging is an expensive proposition, and the almost universal experience of operators in this section is that they cannot ignore the topographical features of their holdings, as costly blunders are sure to occur, unless carefully laid out plans have been adopted at the beginning of an operation.

The "easy chances" have many of them disappeared, and operations must now be extended to the less accessable areas, where logging is growing to be more and more a mechanical and engineering problem.

No department of the lumber business offers such opportunities for losses—or for a lessening of expense by well laid and carefully executed plans—as does logging.

The man who builds a house without a full set of plans, usually has to pay for a whole lot of "extras." The "extras" of the logging business are frequently your lost profits.

Despite the fact that modern logging must be carried on on a scale which requires the investment of large capital, and the expenditure of immense sums of money, many outfits leave the location of their railroads, and the planning of logging operations, to incompetent employees whose mistakes lead to "extras" in the way of wrongly located spurs, excessive grades, poorly placed landings, and long donkey hauls, etc., all of which add very greatly to the cost of logging.

We will show in this discussion that topographical surveys and comprehensive logging plans will do away with these unfortunate and useless blunders.

As to cost: This work can be let under contract to a reliable and responsible firm which charges according to the character of the country from 15 to 30 cents per acre. The work will be done by competent and efficient engineers, especially trained in this line of work.

Taking 25 cents per acre as an average cost in difficult country, this will amount to $160 per section and about $5,760 for a solid township of 23,040 acres, more or less. In easier country the cost would be less.

This covers the cost of a careful topographical survey which, when completed, will show the contours of the hills, the exact location of the main line and branch lines of railroad, in such a way that comprehensive logging plans can be worked out for your entire operation.

It would be advisable to have an estimate made of the timber on each ten-acre tract at the time the "topog" is made, to determine just how to locate the road to handle such timber. Such estimate of timber will cost from 10 to 15 cents per acre, in addition to the cost of the topographical survey.

If your tract is smaller, there is all the more need of your having careful plans of your future operations, as the small logger can less afford the loss of money caused by a bad blunder.

The cost per thousand is practically nil. For a section carrying 32 million feet, the cost at $160 would be $.005, or five mills per thousand.

Generally speaking, this work will pay for itself by virtue of undoubted savings which it will bring about in two departments of logging operations, namely:

A. Railroad Construction and Operation.

B. Yarding and Roading Expense.

Under the railroad division of this work there are six points to which I will call your attention at this time:

1. There is a certain amount of mileage which it will be absolutely necessary to construct in logging your tract of timber. It can easily be seen that the mileage actually built can be greatly increased by a lack of comprehensive plans.

As a general rule the bottom of a ravine or water course is not the best place to build your railroad. However, it often appears to be, to a superintendent who hasn't the necessary engineering ability or experience, or time to properly investigate the country prior to locating his railroad, and he constructs his line up the most available water course, until excessive grades stop him; then he resorts to switch backs, and when he can get no farther, puts in a couple or three donkeys. If by lack of a comprehensive plan you build about one extra mile of spurs in logging thirty-six sections of timber, you have paid for the cost of a topographical survey. Besides that you have added very greatly to the cost of your logging.

2. Under this topic comes also the construction of spurs without any definite knowledge of the tonnage that will come out over each road. To build either too cheaply or too well in any instance, is an expensive error. A topographical survey and estimate of timber shows the territory and timber which will be served by each spur.

3. Another error in railroad construction occurs when an operator builds blindly ahead figuring that he can "get over the divide all right," only to find his mistake, have to tear up a mile or two—or more—of track, and get a fresh start from lower down, very frequently building this second line through denuded territory. This construction is wasted.

4. By having a contour of your lands, the daily cost of operation of your railroad will also be lessened through the elimination of the excessive grades and curves, usually found in an unplanned operation. Steep grades are hard on rolling stock, use up lots of fuel, and generally provide an occasional wreck for excitement.

5. Another important consideration is that by knowing all the data brought out by a careful survey of your tract, you can intelligently determine the exact size, power and type of locomotive you will need. You would not then buy a rod engine, when a geared locomotive should have been purchased, or vice versa.

6. There are many other important details too numerous to mention, which are indicated by a "topog," such as the location and amount of water available for donkeys and locomotives, roads, trails, burns, clearings, and other physical features.

B. Even more important than plans for the location of your railroads, which will only cost about $500,000 for a township, is the planning of your logging operations on the entire tract for years in advance; as the cost of yarding and roading will cost in the neighborhood of $1,250,000. Under this subdivision, we may note the following points:

1. By a careful and detailed study of the maps furnished by the firm which does your work, you can easily determine just about where each landing should be, as you can see at a glance how much, and just what timber should come to each landing to the best advantage; and even though you may not plan to build an adjoining spur for several years to come, you will know how far to yard your timber, without getting onto ground that will be more accessible from the other proposed spur.

Very recently, an operator on the Columbia River whom I know, saved thousands of dollars by seeing, through reference to his "topog" map, that his superintendent's proposed extension of a spur up a steep grade to get out a certain body of timber, would be a mistake. As it is, that particular timber will not be taken out for a number of years, and will come out from the other side of the hill, at a greatly lessened expense. Many times these "hard shows" of which we hear so often, could have been avoided by waiting a few years, and taking the timber from the other side.

2. By having a map you and your superintendent can plan out all important details of your operations to the very best advantage. But should you intrust some of the minor plans to him, you have a means of preventing errors of judgment on his part, before they have cost you money.

3. All of you have heard of instances where a logger has a body of timber that is "inaccessible" by rail, and he puts in several extra yarders, cleans up the timber, and then finds out that he must later build his railroad through this denuded land from another direction, in order to reach another part of his holdings. A "topog" would have avoided such an error.

4. Many outfits have to keep up a regular average output. To do this when your whole crew is working in a hard country, strains your organization to such a point that your cost per thousand is raised to a figure really higher than the show warrants, as nothing seems to work together. A "topog" will help you to plan your work so that only part of your crew has a hard show, while the balance is working in an easy country, and you thus maintain your average at a minimum of expense.

5. You can plan the moving of your donkeys to much better advantage, if you have a "topog." Many times the cost of that spare donkey you think you need, would be saved by planning ahead more.

Another suggestion that is in point is that a contour map will be valuable in the opening up, subdivision, and sale of your denuded land. This should be apparent without further detailed discussion.

Having made the above suggestions as to the admitted advantage of having this work done, the next point we should discuss is the method to be pursued, and the degree of accuracy to which it is necessary and practicable to go.

A study of the proceedings of previous sessions of this Congress indicates that the only method that has been suggested as being practicable for the taking of "topog," is by means of the aneroid, either alone, or in connection with the barograph.

Now, for certain purposes, such as detedmining elevations over a small scope of comparatively easy country, the aneroid might be O.K., but when you use it to contour a large tract of timber, which is to be logged by rail at enormous expense, the questionable accuracy of that instrument becomes too serious an objection for its use—either alone, or even with the barograph.

Where hundreds of thousands, and even millions, of dollars are to be spent in logging operations, your levels need to be taken with mathematical exactness, so that no serious errors can creep in.

* Paper read before Pacific Logging Congress at Tacoma, Wash,

If this work is to be done at all, you will want it done so that it can be absolutely relied upon in the future. You pay out good money, and you want something in return that is correct.

It is the concensus of opinion among men familiar with the work of the aneroid, that it cannot be relied upon for accurate results over any extended scope of country, even when operated by very experienced men. Local storms on one side of a divide, differing climatic conditions at the same hour in camp and on the work, drafts of air of varying density, etc., etc., are contributing factors, even where your results are checked with a barograph.

The aneroid has even been known to register a raise, when being carried down hill.

Without entering too greatly into uninteresting detail, I will say that by this new system of topographical work, the contours obtained by the aneroid are checked up every half mile with lines of spirit levels previously run by regular engineering instruments, and which are practically true elevations. By thus checking up every half mile, the aneroid is not given a chance to get off very far, and if it is off, the variance is caught, and the ground platted as it really is.

Furthermore, if an important divide is located in the interior of a section, the aneroid is not relied upon, but the true elevation is run out with compass, chain and level. Thus in running out your line later, you have practically exact levels, and do not have to figure on any margin of safety, as your plat indicates the true elevation of any controlling points.

I think that you will agree with me, that when careful, accurate work of this character can be contracted for, at from 15 to 30 cents per acre, there is no need of relying upon the vagaries of an aneroid. This work is even more detailed and painstaking than that done by the United States Geographical Survey in making many of their quadrangles. There is absolutely no guess work about it.

I do not wish to appear to suggest that a "topog" is your only and sole hope of dividends; and it is not necessarily true that you will find it best to adhere to the original plans in all details, but it will always be something for you to "shoot at." Most of the members of this Congress are responsible for "dividends." On account of press of other matters, you are generally forced to delegate to someone else the details of planning your operations. Your confidence is possibly never shaken in the ability of that employee until, after a "hard show," your investigations prove that a mistake has been made. It seems that many of these "post mortems" could be avoided by having a "topog" made. By adhering to, or improving upon, the original plans, you can be positive that you are taking out a maximum of timber with a minimum of expense.

It is hoped that the suggestions made, may be the means of so calling this subject to the attention of loggers, that more contouring and planning may be done, and that as a consequence, more of the famous "Scientific Management" may be used in logging operations.

THE WOODWORKER

Cost of Manufacturing Wooden Boxes

The cost of box-making was discussed very thoroughly at the recent meeting of the National Association of Box Manufacturers, held at Detroit, and a most interesting and valuable report was presented by a special committee on cost finding. The report, which was unanimously adopted, was as follows:

We recommend that a committee of nine be appointed to investigate and adopt a uniform method of figuring boxes with a proper cost finding system, that said committee be authorized and directed to employ an expert to assist in developing and installing said system in different zones. Further, this committee recommends that the members of this Association agree to accept the recommendations of this committee and agree to install the system until it has been fully developed; but before this resolution is moved and passed, I have been asked to make a few remarks along the lines of what we have been working on in Buffalo and Tonawanda. We went at this question, feeling that if we could figure out a uniform method of figuring cost, that it would cure probably 90 per cent. of the low prices. The first thing we did was to ask twelve different members to figure four classes of boxes in feetage. We found that the variations in feetage between the high and low, was 12½ per cent.; in other words, there was a difference, with all good intentions, of $3.00 a thousand in boxes right there. We then made up a set of rules that would cover up discrepancies in the different methods of figuring, which I will read to you in a minute. Now, to bear out my remarks, I am going to pass around the uniform card that we adopted and explain it to you. It is not foisting any system on you, it is simply to point out that there is a way in which this committee, when appointed can work out some method that we all can use, and a discrepancy of feetage and the other discrepancies that one man loses sight of and another loses sight of, can be met and overcome, and I think we want, in all good part, to take the recommendation of that committee, whatever it is, and carry it out. This committee will be one from each zone; one from Buffalo, Tonawanda, Cleveland, Bay City, Chicago, Norfolk, etc., and if we can adopt a uniform method throughout the United States in figuring, it doesn't mean that you will follow any set prices for waste or anything—you will have as much competition as before; one man's overhead will be different from his neighbor's, but he will supply the overhead in the same method as his neighbor, so the relative difference won't be great. All manufacturers pay about the same price for lumber and the item of feetage is about the same so you will arrive at pretty near the same result, and instead of going out with a price of twelve cents, you will find that your price will be higher, fourteen or fifteen cents. (At this point the speaker passed around in the audience the typewritten recommendations for uniform method of figuring shooks and nailed boxes.) Now, you will see the heading of it gives the style of the box, the number of the box, and the length, width and depth. Now, under the heading of lumber on the side there, we have the ends, the cleats, the sides, the tops and bottoms. We figure out the num-

Style _____ No. _____ L. _____ W. _____ D. _____

Date _____ Address _____ Name _____

		L.	W.	T.	NET FT. B.M.	5% MATCHING	GROSS FT. B.M.	Lbr. Rgh. Per M Ft.	Lumber & Mill Work Per M Ft.	Price Per 100 Boxes
LUMBER	Ends									
	Cleats									
	"									
	Sides									
	Tops									
	Bottoms									
	% Waste									
	" "									

LABOR			
Cutting & Ripping	@	Per M Ft.	
Matching & Driving Up	@	" " "	
Resawing	@	" " "	
Printing, including ink	@	Per 100 Impressions	
Hand Holing	@	Per 100 Boxes	
Grooving	@	" " "	
Mitering	@	" " "	
Cleating	@	" " "	
Nailing Boxes	@	" " "	
Putting Together – Lock Corner	@	" " "	
Tying	@	Per M Ft.	
Loading	@	" " "	
Non-Productive Labor – Add		% to above Labor	

MATERIAL		
Glue	@	Per M Ft.
Nails	@	Per 100 Boxes
Twine or Wire	@	Per M Ft.
Fasteners	@	Per 100 Boxes

OVERHEAD EXPENSE: ____ % of all Labor

Cost F.O.B. Factory

Profit ____ % of all above

Cartage

Freight

Price per 100 Boxes _____

Price Equals $_____ Per M on Net Ft.

Net Ft. B.M. _____ @ _____ Lbs. Equals _____ Lbs.

Cost Sheet Suggested by the Committee

Glue Hardware Ink Nails Rope, etc.	LUMBER		LABOR		FREIGHT		EXPENSE & PROFIT		CARTAGE	
	Per 100 Boxes	Total Value	Per 100 Boxes	Total Value	Rate Per 100 Boxes	Value	Rate Per 100 Boxes	Value	Rate Per 100 Boxes	Value

Cost diagram suggested by the Cost Committee

ber of feet for each one of those sides, because oftentimes, you might use different priced lumber in the bottoms and different priced lumber in the cleats and on the sides. We adopted a rule that any one-piece side box 8 in. in depth and deeper—we arbitrarily arrived at an arbitrary differential of $2.00 a thousand more for 8 and 10 in. than the cost of your lumber, on the theory that the market price for that wider lumber was more, and then that allowed a man who wanted to work up his narrow lumber and had two-piece sides—it brought the two-piece side lumber a little below the price of one-piece, because a man is not going to buy a two-piece side box unless it is cheaper than a one-piece side box.

In our matching after a series of tests in order to give an easy method of figuring, we found that 5 per cent. added to the width, if your bottom is 14 or 15 in., say, that 5 per cent. covered the matching as an average proposition. There's our item for gross feet. Then we started lumber, as you see, at the cost price delivered at the mill; then we added a column for milling, because different parts may be milled in different ways; then that starts out in prices per 100 boxes, then the manufacturer puts in what his expense is on waste, then you bring down into that column the value of your lumber; then, under labor, we itemize the different items. We stopped at the 1,000 feet figure as absolutely wrong. Between No. 5 and No. 6 there was a difference of 100 per cent. in labor cost. Between No. 5 and No. 6 and between some other two, there was fifty per cent. difference, and a man figuring per 1,000 feet, was simply striking a happy-go-lucky guess as to whether he hit the average or not. We find that No. 5 was high in cost on 80 per cent. of his boxes. When he got the order he got 80 per cent. of the high-priced orders and was way behind in his profits. Then again, your waste will vary individually. If you have a long box, like a soap box, there is more waste than on a smaller canned goods box; so each box should be figured individually; then you can put these cards into a drawer and the next year, when your customer comes around, all you have to do is to pull the card out and you don't have to figure them over again. In itemizing all the different operations—when you figured per 1,000 feet, you didn't get in a whole lot of things, like cutting and rip-sawing, matching and driving up, resawing, printing, including ink, nailing, handholing, grooving, mitering, cleating, putting together—whatever you do in there, you figure out the cost of those different operations and that becomes your labor cost. Then we found there was an item of lost labor, as we called it; then there's an item of non-productive labor for sweepers and all of those things. We kept the productive labor separate from the non-productive pay roll and found what per cent. of the labor that was and added that in. Then our overhead, we found there were as many different ways of spreading overhead as there are hairs on a cat and we adopted this plan—we say to a man, "You've got a carload of crates with 24 cuts in it; there are 22,000 feet in that car. If you saw a carload of apple boxes that has six cuts in it, if the price per 1,000 for overhead is $2.00 and you are through to-night, in that case you are earning $44 by night, but if you are sawing three days, you earn $44 at the end of three days." We had to arrive at some way in which the overhead would follow labor. Now, there's lots of labor on a beer box. We arrived at a per cent. and the way we arrived at that per cent. was this; we took our entire labor cost last year, the total amount of money paid out for labor, the total amount last year for overhead and the overhead was such and such a per cent. of that labor, then if labor costs 4 cents to make a box, and your overhead is 75 per cent. of your labor, the overhead is 3 cents. If your labor cost is 1 cent. the overhead is ¾ of a cent; but at the end of a day, every saw has equalizers, and then there are your profits and freights.

Now we come to this sheet; this is what we call a proof sheet. I may have sold Mr. Porter 1,000 boxes. This proof sheet is simply a series of columns to prove out your figuring at the end of the month. The first column is net feet per 100 boxes. You take a card out of the file and transfer these figures on to this sheet, the actual net feet shipped, and then the percentage of waste you figure here, which is so many feet, and when you come to the end of the month, your net feet is so much and your waste is so much and that may total 1,000,000 feet. After this thing is filled out by your bookkeeper it is turned over to the accounting department and the number of feet actually brought in is put down. You find there's 1,100,000 feet brought in, so you are short 100,000 feet; or maybe you are on the right side of it. It proves up whether you have been paid through your invoicing for the feet you drew. If you are short, or if the value of the lumber drawn in was more than you were paid for, that comes from the fact that in cutting up a board, you might strike a rotten end and it might be laid aside to be put into a cheaper box and immediately there's a drop there. We covered that after running this thing two or three months. You find that drop in every factory, unless you are cutting one grade of lumber. Then we arrive at the per cent. of what that drop is and cover it with that per cent. so the invoice in the following month will bring it up and cover that per cent., and it is the same with labor. This item of labor is just transferred on here, labor per 100 boxes, total, so much. At the end of the month you have been paid through your invoices for so much labor. Your ledger shows that you paid out $500 more labor than you got paid for—either your figuring is wrong or something else is wrong and you go hunting for it. This is simply a proof sheet that most every firm has a man figuring on. This puts it up to the head of the firm to know whether he is being paid through his invoices the full amount of what he is contributing; and the same in freight and overhead expenses. Your expenses are so much a hundred boxes. At the end of the month, you've got your overhead figured up and tested with your ledger and can see if you have been paid. That's what we call a proof sheet. The two work together. We found that invaluable, because it's human nature, when you see a thing wrong in front of you, you correct it; you go at it right off to find out where the trouble is, and if you can't find it, you cover it by your precentage. The method of figuring has been wrong somewhere, and that's the proof of it. These rules that we made up are as follows. I will just read them quickly. This is only an amateurish proposition, but it has been very effective with us and it is held out to show that some such system can be worked up and when worked up, it ought to be accomplished, because uniformity of figuring will cure our troubles.

RECOMMENDATIONS FOR UNIFORM METHOD OF FIGURING SHOOKS AND NAILED BOXES

Style No. 1 Box

One Piece Throughout.

Figure even widths only; any width over stock width to be figured on next highest even width.

Any or all Parts Matched.

On matched parts add 5 per cent. to net feetage of part matched, except on 2 pc. parts, where stock width will work to best advantage, in which case do not add for matching.

One Piece Parts.

Figure as on straight one piece box.

Any Part of Two or More Pieces Not Matched.

To be figured net frontage.

General Rules for Above

Add to inside length exact thickness of ends for figuring lengths of sides, tops and bottoms, except where lengths will fall on any ⅛ in., in which case use next succeeding ¼ in.

Example: For ⅞ in. ends add 1¼ in.
13/16 in. ends add 1¼ in.
11/16 in. ends add 1½ in.
9/16 in. ends add 1¼ in.

In figuring width of tops and bottoms, and actual thickness on sides.

NAME	SIZE OF BOXES	Style	Quantity	Net Feet Bd. M. Per 100 Boxes	ACTUAL NET FEET, Bd. M. In Boxes Shipped				WASTE
					Dove Tailed	Nailed	Shooks	%	Actual Feet Bd. M

Material diagram suggested by the Cost Committee

except where width falls on any ⅛ in., in which case use next succeeding ¼ in.

Style No. 2 Box

All parts unmatched to be figured on actual cutting lengths and widths.

On any matched parts add 5 per cent. to net frontage to cover matching. Cleats to be figured on actual cutting lengths, and ripped ⅛ in. narrower than figured.

Example: 1½ in. cleat rip 1⅜ in.
2 in. cleat rip 1⅞ in.
2½ in. cleat rip 2⅜ in.
3 in. cleat rip 2⅞ in.
(See second paragraph, General Rule).

Style No. 3 Box

Same rule to apply as on Style No. 2 as regards Ends, Sides, Tops and Bottoms, and Matching.

Cleats to be figured on length of longest edge.

Widths, same as Style No. 2.

Style No. 4 Box

Same rules to apply as on Styles No. 2 and No. 3.

On Cleats—apply same rule as on Style No. 2.

General Rule No. 2

1st. Always figure feetage of each part of box separately, using Leaver's Box Estimator.

2nd. All cleats to be figured (whether made from whole lumber or waste) on net contents, and on account of increased cost and decreased output we recommend advanced prices for cleats over and above base price of shooks, on the following scale. Cleats containing:

1 to 3⅜ ft. net per 100 cleats, add .....100 per cent.
4 to 5⅜ ft. net per 100 cleats, add ..... 75 per cent.
6 to 15 ft. net per 100 cleats, add ..... 50 per cent.
16 to 30 ft. net per 100 cleats, add ..... 20 per cent.
31 to 50 ft. net per 100 cleats, add ..... 10 per cent.
50 ft. and over net per 100 cleats, add price of shook.

3rd. Do not figure to ⅛ in. on any dimension; use next succeeding ¼ in.

We recommend the following methods of figuring:

Stock widths 8 in. and up $2.00 M higher than promiscuous.

Lumber—Rough, at mill, per M ft.
Mill work, per M ft.
Waste, per M ft.
Labor—Cutting and ripping, per M ft.
Matching and driving up, per M ft.
Resawing, per M ft.
Printing, if any, including ink, per 100 impressions
Nailing, if any, per 100 boxes,—according to style and size.
Hand holing, if any, per 100 holes.
Grooving, if any, per 100 grooves,—according to length of groove.
Mitering, if any, per 100 boxes.
Loading, per M ft.
Tying, per M ft.
Non-productive labor, on basis of producing labor, estimated 25 %.
Materials—Glue, per M ft.
Nails, per 100 boxes; on cleating figure one nail to each 2 in. or fraction thereof; on nailed boxes, figure one nail to each 2 in. or fraction thereof on sides and bottoms across ends. Add side nails in bottom.
Twine, per M ft.
Fasteners, per 100 boxes.
Wire, per M ft.
Overhead expenses—On basis of labor.

See examples following:

Style No. 1 Box—18 x 14¼ x 8 Nailed up; printed. 2 sides in 1 color.

⅞ 1 pc. End D2S
⅜ 1 pc. Side D1S
⅜ 3 pc. T & B D1S&M & Glued

	Feetage			
End 14¼ x 8 x ⅞	1,584	at $30.59	per M ft.	$4.85
Sides, 19¾ x 8⅜	1,097	at 31.49	per M ft.	3.46
T. & B., 19¾ x 15 x ⅜	2,057	at 30.63	per M ft.	6.62
Add 5 % to T. & B. for matching	103			
	4,841			$14.93

	Ends	Sides	T. & B.	
Lumber rough at mill	$22.00	$22.00	$20.00	
Mill work	.75	1.50	1.50	
	$22.75	$23.50	$21.50	
Waste, 20%	4.55	4.70	4.30	
Cutting and ripping	1.25	1.25	1.25	
Matching	...	...	.50	
Tying	...	...	.10	
Loading	.25	.25	.25	
Glue	...	...	.15	
Twine	...	...	.10	
Non-productive labor, 25% of producing labor	.38	.38	.53	
Overhead, 75% of all labor	1.41	1.41	1.95	
	$30.59	$31.49	$30.63	

Printing, 2 impressions at 12½c. per 100 impressions	.25
Nailing	.50
Nails, 3,600 5d. at 10c. per 1,000	.36
	$16.04
Profit 10%	1.60
Price per 100 boxes, f.o.b. mill	$17.64

Same in Shook

	Ends	Sides	T. & B.
Lumber rough at mill	$22.00	$22.00	$20.00
Mill work	.75	1.50	1.50
	$22.75	$23.50	$21.50
Waste, 20%	4.55	4.70	4.30
Cutting and ripping	1.25	1.25	1.25
Matching	...	...	.50
Tying	.20	.20	.20
Loading	.25	.25	.25
Glue	...	...	.15
Twine	.20	.20	.20
Non-productive labor, 25 % of producing labor	.43	.43	.55
Overhead, 75% of all labor	1.60	1.60	2.06
	$31.23	$32.13	$30.96

Ends	1,584 ft. at $31.23	per M ft.	$ 4.95
Sides	1,097 ft. at 32.13	per M ft.	3.52
T. & B.	2,160 ft. at 30.96	per M ft.	6.69
			$15.16
Printing, 2 impressions at 12½c. per 100 impressions			.25
			$15.41
Profit, 10%			1.54
Price per 100 shooks, f.o.b. mill			$16.95

Thickness shall be figured as follows:

1/4 in. D1S 1/3 of 5/4
5/16 in. D1S 1/3 of 5/4
3/8 in. D1S 1/2 of 4/4
7/16 in. D1S 1/2 of 4/4
1/2 in. D1S 1/2 of 5/4
9/16 in. D1S 1/2 of 5/4
5/8 in. D1S 1/2 of 6/4
11/16 in. D1S 1/2 of 6/4
3/4 in. D1S or D2S full 4/4
13/16 in. D1S or D2S full 4/4
7/8 in. D1S or D2S full 4/4
15/16 in. D1S or D2S full 4/4
1/4 in. Rough 1/3 of 4/4
3/8 in. Rough 1/3 of 5/4
1/2 in. Rough 1/2 of 4/4
5/8 in. Rough 1/2 of 5/4
3/4 in. Rough 1/2 of 6/4

We established a uniform method of figuring thickness. We have found fellows that would go to work and work their heads off picking out lumber that they could get ½ in. and ⅜ in. and call it 1 in., and we remedied that as shown above. Now, the object in presenting this thing was to convey to your minds the fact that it is possible, having been demonstrated, that a set of box makers can work from one uniform system of rules, and we recommend strongly to the committee that the Association empowers this committee to work out such a system of rules and uniform practices that we can all adopt and that we do adopt them when we get them and that this committee have authority to employ somebody that will make it his business to go around in zones, go to Bay City, for instance, and stay there until he explains the whole thing and get them to work on that basis. You leave them to put in their own figures; we are not asking them to agree to anything, but we know the advantage of starting from a common standpoint, and they will have no trouble at all. That is the only object in printing this out, to show that it is possible. We have accomplished it in our section and cured a lot of our troubles and the other day, on some boxes where we all figured in competition, without anybody knowing the other fellow's figures, there was a difference of only .59 of a cent. on a box that cost $1.40—and nobody knew the other fellow was figuring on it. The object is simply to arrive at some common practice, and that shows how close we can come. Our trouble in the box business is that everybody does it differently and I hope that the Association will appoint such a committee. The committee was authorized to make up a list to cover the different zones and we recommend the following persons for this proposed committee:

I might just add one thing; in working this thing out, all differences have disappeared between us and it is astonishing, when we first tackled it, what different results we got from what we had been doing, and yet, as we studied each individual item, our members couldn't see where they could cut them in any case, and they'd go to the customer with that cost before them and put their feet in the ground and stand there till they got their order.

About the Humble Bung

Consider the bung.

The bung is the blushing violet of the wood specialty field. Modest, unobtrusive, it performs its work, and it is seldom that the calcium light is thrown in its direction, or that industry stops to give to it the meed of praise which it deserves. But regarded as a commercial proposition, the bung is some product. Like the pin, nobody knows what becomes of it, and yet it takes millions to supply the demand.

A lot of time and thought are spent on devising the best plans of making tight barrels. Manufacturers of machinery for making staves and barrels have worn permanent corrugations in their lofty brows figuring out new ideas, and incidentally providing a round hole for the bung to stop. Few of them, however, have ever thought much about the bung itself. It has been taken for granted.

Every little barrel has a bung-hole all its own, and consequently needs a bung to stop it, once the package is used for the purpose intended. But this is not all. The barrel frequently lasts for many successive uses, and each of these require a new bung. Thus the whisky barrel, that aristocrat of the tight package field, can be utilized

* Reprinted from the Hardwood Record.

but once by the distiller, but after it passes from that industry it goes to the vinegar, pickle or oil handler, and requires a brand new bung in order to carry out its work in the new field to which it is introduced.

The beer-keg, as most lumbermen know, is a busy little worker, lasting for a couple of years or more, with re-coopering, and after the thirsty consumer has emptied it each time, back it goes to the brewery—but minus its bung. Therefore the brewer is a regular customer of the bung manufacturer, and the quotations on bungs, f. o. b. the Brauhaus, as we of the Vaterland have it, are studied just as carefully as the stove founder looks at pig iron prices.

The bung is one of the most versatile members of the forest products family. Instead of being exclusive and snobbish, as for instance, the whisk stave is, and insisting that only wood is good enough for use in its production, the bung embraces them all with a wide and inclusive affection that bars the gates to no wood that has enough clear material to fill the bung-hole in a tight and workman-like manner. In fact, while the bung is usually made of poplar, it is not unusual to find oak, gum, cedar and even pine figuring in its manufacture. Poplar, however, is the father of the bung, and Mr. Poplar Bung is the most important member of the Bung family circle. Oak Bung is a rather sizable youth, but Gum Bung and his little brothers are merely small shavers who are given a place at the second table and not allowed around when company is present. That, however, doesn't affect the truth of the statement that bung manufacturer permits the use of a wide variety of woods.

It is rather surprising to the uninitiated to learn that the bung requires a pretty good grade of lumber. At first blush it would seem that the bung producer would make money by buying up low-grade material, working up the good and throwing away the rest, since a bung of standard dimensions is 1 15/16 inches across the top and is one inch in height, so that not a great deal of material is required to make it. The bung factory manager has evidently learned by experience that the losses through waste, as well as the expenses of handling and inspection, are so great as to justify him in specifying a rather good grade, and consequently the bung gets No. 1 and No. 2 poplar, for instance, and correspondingly good quality in oak, gum and other woods which are used in this business.

The board which goes into the bung factory must be clear, and must be without sap stains or worm-holes. Poplar is easier to get in what might be called the "bung grade," and this may account for its precedence in the matter of consumption. It must be a lot of satisfaction to the kings of the poplar forests as they expand to magnificent height and develop trunks which are round and plump and straight, to realize that their choicest boards, next the heart, may one day find their way into that most exclusive of manufacturing plants, the bung factory.

While the bung itself is a hail-fellow-well-met, those who are interested in him are not of that type. They require that the lumber which is seeking preferment in the choice business of bung manufacture must stand more rigid inspection than almost any other class of material, and the board which crosses the factory threshold has been given, in effect, a passport to the 400 of Bungdom.

In the same connection it should be noted that the factory processes of bung production are not generally known, for most of them are controlled by secret devices which their proprietors are not desirous of making public. In fact, it is said by some that one of the largest bung plants in the country, which has made millions for its owners, is not only closed to visitors, but is not even viewed by employees who are not needed in the operation of the machinery. The latter is specially designed for the purpose, but it is said that it has not been patented because of the fear that others might adapt the idea and thus get in a position to utilize similar machinery. As the field is necessarily a limited one, these precautions are worth using.

The standard bung, as stated, is 1 15/16 x 1 inch in dimensions. There are a great many bigger bungs made, however, some huge casks requiring bungs that have a longitudinal diameter of four in. As a rule though, inch lumber is the thickness usually bought, while two, three and four inch stock is purchased in smaller quantities for the purpose of taking care of special orders for the more important and heavyweight members of the Bung domicile.

It is a little puzzling to figure just how many bungs are produced. If one were to base an estimate upon the requirements of new barrels alone, the figures would not be impressive. There were 355,000,000 tight barrel staves made in 1910, and assuming that the average requirements per barrel involved 20 staves, this meant that not quite 18,000,000 barrels were made. In the same year 26,000,000 sets of heading were manufactured, indicating that the barrel production was somewhere between the two figures just noted.

These figures cover new barrels only, while millions of old barrels are constantly requiring reinforcements in the way of additional bung supplies. The beer trade alone must be an enormous consumer of bungs, while the various classes of trade which use and re-use their packages are proportionately larger consumers than those which use a barrel but once, as in the whisky distilling business. In the re-handling and rectifying of whisky, of course, the barrel may see additional service, so that in this trade alone there are a lot more bungs needed than the known production of whisky packages would suggest.

With this in mind the estimated production of a large bung factory in an Ohio Valley city is easier to understand. It is said to consume close to 10,000,000 feet of lumber a year, most of it poplar and oak. Figuring on the basis of the standard bung dimensions, there would be a production of thirty bungs per foot, allowing for waste. On this basis the production would amount to 360,000,000 bungs a year—a truly amazing total, which makes the modest bung a commercial factor of more than ordinary importance. These figures may be out of line somewhat, but inasmuch as they are based on the operations of but one plant, they show pretty plainly that the bung business, taken as a whole, and considering that it is based on the requirements of so insignificant a thing as a barrel-hole, is some business.

Milton, the blind poet, wrote something in his later years which pointed the thought that inactivity does not necessarily mean idleness. He realized that the fallow mind may conceive and create some great production which would have been impossible had the ordinary affairs of life engrossed it. He felt, therefore, that he might truly say for himself,

"They also serve who only stand and wait."

The lumber poet may disdain composing a sonnet addressed to the bung; yet it is deserving of some such treatment, and of having its virtues handed down to posterity in enduring fashion. While the bung plays a minor and inconspicuous part, unaggressive, yet steadfast and efficient, it bears out the truth of the Miltonic declaration that service is not a matter of active effort, but may consist of calm and patient bearing of the load. The bung, especially in its relation to the booze-barrel, holds many a load in place, so that the quality of its service and its intimate bearing on the needs of mankind are undisputed.

Consider the bung.

The Preparation of Core-Stock for Veneered Doors

By G. D. Grain, Jr.

The manufacture of core-stock for veneered doors is a process with which the average planing mill operator is familiar. Methods vary so greatly in this connection, however, that it is probabe that an effort to determine which is really the best plan would be worth while. Take for example, the matter of cutting to dimensions. Some mills glue no stock in and attempt to get no core material ready unless they have a specific job into which the material is to go. Then they cut the stock to the exact sizes which are required, glue them up and lay the veneers.

The weak point of this system is the large amount of handling required. The number of short pieces which have to go through the glue-room and be gotten in shape for use is large, comparatively, and the cost of handling them is much greater than if it were possible to do the same thing with a smaller number of pieces. Also, a good deal of time is lost in waiting for the core-stock to reach the stage where it can be veneered, and frequently a special order is delayed just on that account.

A plan which has been found more satisfactory is to cut a large amount of material intended for use in cores to standard lengths and widths, such as 7 ft. 1 in., 7 ft. 7 in., or 8 ft. 7 in., cutting the offal to smaller sizes for use as rail stock. This stock is glued up in 10½-in. widths, for the most part, other dimensions being provided for special purposes. The stock is glued up in bundles and bolted together. Then it is stored in a room especially prepared for the purpose. Before it is manufactured, the stock is edged and cut to the proper dimensions for the sizes desired, and the result is that the manufacturer has constantly at hand a full supply of core-stock, ready to use, practically.

Suppose an order comes in requiring this material. Instead of having to do all the work of cutting to size, gluing and waiting for it to dry out thoroughly, all that is necessary is to take as many bundles as are required from the storage compartment, rip them to the desired widths, shove them through the planer and then lay the veneers. The time saved amounts to a good deal, and in the case of a hurry-up order, this counts for a lot.

In cases where a comparatively small lot of doors are being made up, the process of getting the stock through the glue-room would tie up the equipment longer than the importance of the job justified. On the other hand, with the stock ready for use, as much or as little can be had as needed, and when it is made, a maximum amount of cores can be put through at the same time, thus economizing in labor and equipment.

When a carload of material is cut up into core-stock, it frequently happens that the work can be done at a time when there

is no pressure either on the machines or the glue-room. In other words, the superintendent can take advantage of a possible lull to get the work through and out of the way. If this plan is not used, and the necessity for getting the core-stock in shape bobs up at a time when other work should have the right of way, it is not only likely to cause loss of time in getting out the doors, but also interferes considerably with the routine of the plant.

Under the plan used in some mills, of doing nothing toward the manufacture of their core-stock until they are ready to manufacture the doors, it takes a week to put a piece of work through the mill. Under the other plan, such a job can frequently be gotten through in two days. It is just a question of getting the material ready, as far as can be done, and then utilizing it as necessary. Handling the longer lengths through the glue-room is a big advantage, and the labor cost involved is materially reduced when this plan is followed.

A lot of small planing mills which make up only occasional orders for doors, use a lot of built-up material in their veneered doors. Some of them have begun to question the advantage of this plan, and have looked more at the labor cost involved than they have done before. When odd lengths are used, and various thicknesses are glued up into core material, it is certain that the labor cost involved in preparing it is immense compared with the process of manufacturing core-stock from regular board material. The first cost in the latter case is larger—but think of the lessened cost as far as handling and labor are concerned.

Then, too, the amount of glue used is not only an added item of expense, but contains possibilities of trouble. The more joints, the more apt is a defect to develop. That is a truism in businesses where veneer-laying is a factor. While it is true that most of the doors made of built-up core-stock give good service and never cause any trouble, the possibility is always there.

In putting together core-stock, whether by the method of manufacturing from regular sizes or from scrap, it should be remembered that the chances usually favor the use of too much glue rather than too little. The amount of glue used should be as little as is necessary to do the work, for if more is put on there is a good opportunity for the joint to be uneven. While a fairly cheap glue can be used for this work with good results, it is a better plan to use as good a grade as the value of the job will stand, remembering that good glue not only flows more easily, but gives a greater coverage than a cheaper grade. And, as in the case of lumber, the first cost of glue is not the determining factor as to its ultimate value.—Berlin Quality.

The Retail Dealer and His Problems

The Slow Pay Customer—How to Handle Him

Getting the Money

"What is the most efficient method of collecting from slow-paying customers that live a long distance from our place of business, when correspondence proves of no avail and the agent's presence is required in the yard?"

"What is the best and most satisfactory manner in which to handle a bunch of hard-headed customers in regard to sending out statements?"

"How can I handle slow collections?" (This question from one of the most successful collectors.)

These three questions cover practically the same subject—collections—and as may be seen were submitted by as many different managers operating yards under the same general conditions and the same line of customers that are to be found in a country where trade is dependent largely on the crop yield and the prices obtained for it. 'Tis true, of course, that the lumber business is affected everywhere by the same causes, but where the country is comparatively new and the territory large there are a few things in credits and collections that differ somewhat from what they are in sections where they are more densely populated.

As I think over my experiences in the '70's and early '80's it seems remarkable now how we used to give credit to men we knew little about and who lived twenty to thirty miles distant. Indeed there was one time in 1876 that I had over $2,000 standing out among the customers who lived over fifty miles away. But then it was only a part of the great faith which we had in the country as a whole. Dwellers on the new prairie in those days gambled with life in many ways and the people were no more financially reliable than was the country in the producing of crops. As with the land, we took the people generally at their face value and trusted largely to luck to make our collections. Practically everything depended on the crops because this was before the appearance of the eastern money loaner with his ten per cent. mortgages. I was running a yard then in Nebraska within a few miles of the northern line of Kansas and all of my long distance customers were in that state, so that the trouble of collecting the slow ones was increased for this reason. Notwithstanding all this, however, I never had to have recourse to the law to collect these slow accounts although I had some pretty close shaves from being obliged to do it. I probably should have done some suing if the parties had shown themselves in town so that the papers could have been served on them, but they were too wise to be caught that way, so they stayed on their side of the fence and let me do the worrying. It was a long trip to make on the stage route but I made it several times that fall and the next spring to get in personal touch with the delinquents. The fact of my coming that distance was conclusive evidence to them that I meant business and I did too, for I considered no excuses of any nature short of death. I have taken chattel mortgages on anything of value and where the party had already mortgaged everything he had in the world, I got his personal note with the names of one or more of his friends as securities. These I left with the local bank for collection. But, oh, what a job it was to get such a class of business rounded up and settled. I lost a few dollars from parties who had moved away.

An Experience That Paid

It was a hard experience, but it was a valuable one to me in my experience afterward in the matter of collections, for I learned that where long distance, slow-paying customers paid no attention to the requests for payment sent them through the mail, there was nothing else left for me to do but get a buggy and go out to see them and give them the alternative of giving a secured note or being sued for the account if they had not the money at the time. This is the last resort in such cases, but I would advise never to take such a step unless with a full determination to carry out the purpose formed before making the trip. Don't go out and have him put you off with verbal promises. Insist on having those promises put in writing and in legal form and if necessary, have them secured in one way or another. The fact of your presence being required in the yard should be no deterrent from a trip of this kind. I always considered that the payment or securing of a long-winded or doubtful account was as good, if not better than the making of a good sale. At least I always felt more pleasure over it.

Of course there are some slow paying customers living at long distances from the yard who are able to pay their bills and for this reason are slow. They come to town but seldom and therefore are far removed from the personal influence of their creditors and their work at home is such that they are not going to make a trip for the purpose of paying an account no matter how old it is.

How to Avoid Trouble

There is only way I know of that will obviate all this trouble and in the majority of cases make it unnecessary to go out after them and that is either to take a time note or before they leave the office make out a statement of what they are taking out of the yard and have their written agreement to pay interest on it after the time limit you are giving them. If you do this you may be sure that it won't pass from their minds for very long after it begins to draw interest and yours will be among the very first accounts they do settle when they have the money. In this way you transfer a part of the worrying to them. I know, however, the objection that will be raised to this and it will be that "the other fellow won't do it and if he don't then I will have to do as he does in the matter."

It is curious how one dealer will allow another dealer to control his business in the matter of credits, but such is the case and the so-called "independent dealer" is not independent at all only as he owns his yard and does his own buying. The rest of his business is subject to the control of his competitor. You may think this is a funny way of looking at is but examine the question yourselves and see how much real truth there is in it. If you don't elect to follow the natural business course I have indicated as above then there is no use in complaining about the long winded customers living so far as to be only reached through the mail, but be satisfied to take

your chances along with the "other fellow" who doubtless thinks of you as you do of him in this matter as well as of the other things in the competitive struggle for business.

The Agent's Presence in the Yard

is no doubt considered by him a necessity and therefore a handicap to him in his collection business. I used to think so myself when conditions made it necessary to run a one man yard, but when I got to having one or more men helping me I trained one of them so that I could leave the yard for a day or two if necessary. It is one of the most natural things for a man to think that his presence is necessary every day in his yard and more especially if he is a man-of-all-work as most of the retail yard managers are. They acquire a habit of routine and a way of doing things and thinking that no one else can do as well as they can. They are so adjusted to all this that they fear things will get out of adjustment if they leave them for any length of time. Now the fact is, a good deal of this is mostly imagination on their part. There is something wrong about a system that won't run a few days without the hand of the "boss" guiding it.

I have known a good many housewives who were so devoted to their housekeeping duties that they never thought it was possible for them to leave home and go on the vacation which they greatly needed. If perchance they were forced to leave to attend the funeral of a distant relative or for some other compelling cause they worried all the time of their absence for fear something would go wrong at home. On their return, however, they were surprised and a little disappointed to find that the machinery of their household was running along as smoothly as though they had been at home. Sooner or later every individual in this world wakes up to the consciousness that he or she is not indispensable. It comes with a shock sometimes and in a way that we don't like, but it comes. Ever since I had a second man I endeavored to train him in the methods of doing business. I taught him how to measure and figure lumber and weigh and figure coal so that when I left the yard to go away on business or for other cause I could go without worrying that things would not go on right. Rarely, if ever, have I found on returning that anything serious was out of the way. If my helper was not this kind of dependable man I didn't want him. I have trained more than a dozen men in this way who left me to become managers of other yards and it is a matter of pride with me now that I have done this. The business of a yard is not wholly confined to the details about the yard. It is important of course to be "on the job" and all that sort of thing. I don't believe in going up town or out to a ball game and letting the yard run itself with no one but a watchman to see that nothing is taken.

The "Watchman" Should be Competent

to do the business in your absence, but there is a class of business away from the office that needs attending to as well as the ordinary routine. Only a small proportion of the people in the community are ever seen at a lumbering yard and therefore this business is to get acquainted with the rest that don't come and in the mixing up with them the dealer, if he keeps his eyes and ears open, very often learns something that is directly to his interest and advantage. Another part of this business is the looking after of men who owe him. He frequently can learn in this way that he is giving a certain party too much credit; that another is preparing to move away from town or that a certain farmer who has been owing him a bill for a long time is going to market his hogs soon and as old accounts are not always the first paid he is thereby given a chance to get in his work at the opportune time.

The Sending of Statements

The question relating to the sending out statements to "hard headed" customers no doubt was asked by a manager who has arrived at that period in his experience where it puzzled him to account for the dislike of some men to receive such a common thing as a statement of their indebtedness through the post office. I remember how greatly surprised I was when I had my first experience in having a farmer come into my office "mad as a wet hen" because I had sent him a "dun," as he called it, through the mail. He was too angry to talk with me about it but slammed down the money and the statement and walked out without waiting for the receipted bill which I afterward sent him with a diplomatic worded letter explaining the business reasons for doing it. Of course I lost his trade for some years afterward, but in time he became better acquainted with business methods and eventually came back again with sort of half apology for acting the way he had.

For a time it put a damper on my efforts in this direction to "stir up the animals" among the delinquents. But when I too became better acquainted with what was fair and right in business methods I lost all sensitiveness and reluctance about sending out statements through the mail or requests for settlement. I got some pretty hard "jolts" though before I had educated my trade into understanding that such a thing was no more than a business right that I had of asking for my money when I needed it.

The fact is the majority of dealers in those days did business by what we would call loose methods nowadays. It was the almost universal custom then to give farmers credit and the farmers would extend the time of payment to suit their own convenience. I don't know how much this custom is followed among the country dealers at the present time but whenever it is it is sure to breed in the farmers the idea that they are not fairly used if they get a "dun" for the account before they are ready or disposed to pay it and they are equally sure to resent any attempts to press them. Every manager will save himself trouble in this regard if he will take the pains to carefully explain and make a credit customer understand that he will be as free to ask for his money when the account becomes due as the customer is in coming in and asking for the accommodation of the credit. This I consider is one of the most essential things in the giving of credit to everyone else as well as the farmers. It is hardly conceivable that any sensible mind will take offence at such a proposition if put to them in the right way and it requires no argument to a farmer understanding this to show him that a dealer must have recourse to the mail to notify him that his account is due. He knows very well if he owes money to the bank that he will get a notice when his note is due and a request to take care of it besides. He is accustomed to the bank's doing it and he thinks nothing of it. In like manner will he so regard the lumberman's statement sent him through the post office if he understands it to be the regular thing.

"Hard-Headed" Customers

The term "hard-headed customers" has a peculiar significance to one whose trading is largely with the farmers. When I was a boy I used to hear of a certain farmer that was known as "Hard-head Johnson." I didn't know at the time what it meant. I supposed it was a nickname from some physical peculiarity and it was many years before I learned that it was owing to his sordid selfish nature and the cunning shrewdness of his character making him an unusually hard man to deal with. Since then I have met and dealt with a number of just such men and like the men I've described they were mostly farmers. As a rule they were able to pay their obligations, but they seemed obsessed with their idea of figuring and scheming to beat me down to the lowest notch in prices and then wanted to run an account on those terms and pay it whenever they saw fit. "Dunning" them for it never seemed to have the slightest effect on them and it would require a surgical operation to reach where they were sensitive to other people's rights. These men are to be numbered with those of others coming under the head of

Slow Collections and How to Handle Them

My notion is that there are two classes of accounts that are slow of collection, one is the class I have above named, and the other, those that are doubtful because of the inability of the parties to pay. You can force the one to pay, but the other you cannot and the trick is to get it out of the latter by other ways than by legal forcing. There were but few of the early settlers on the prairie land of the west who could pay the large amount of cash necessary for the purchase of a harvester. Consequently they had to buy them on time, giving their notes running through a term of years. The failure of crops caused a large percentage of these notes to be practically valueless at the time, but as the subsequent years grew better and the farmers were getting on their feet again the holders of these notes began to send out expert collectors to try and see what could be done to realize on them. The first lot got what money they could and security for as much as possible. The next year another set of men were sent out and they in turn did what they could to reduce the amount of what was outstanding and very doubtful. As one of them told me "we are going through this country with a fine tooth comb." And so they did but there was still left a considerable residue of those unpaid machine notes. To finish up these a class of triple extra good men were sent out and they literally camped down with the delinquents until most of this residue was either paid or secured. I have listened to some wonderful stories told by these experts of their experience of effecting a settlement in cases where the other two sets of collectors had passed as hopeless. There were no lawsuits or any threatening or force used whatever, but through the sheer force of magnetic personality these men effected their purpose and this is about the only way this class of "slow collections" can be made to settle. What one man cannot do another can for it is a matter of constant hammering with tact and personality. There are no particular rules to go by in effecting a settlement with a party who refuses to pay and who is execution proof, but the trained and stronger mind can do it through the subtle force he exercises over the weaker.—C. K. Ketridge in the Mississippi Valley Lumberman.

WANTED & FOR SALE DEPARTMENT

PUBLISHERS' NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

WANTED—LUMBER, ETC.

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

WANTED—One hundred thousand feet 1-inch Mill Cull Basswood, delivered Ottawa. Address, stating price, The Continental Bag and Paper Company, Limited, Ottawa, Ont. 20-28

Lumber Wanted

Several cars of good 1-inch No. 3 Common Hardwood, Birch preferred. State quantity, average width, and best price. Box 578, Canada Lumberman, Toronto, Ont. 18-21-5

Wanted

100,000 hewn Cedar Ties for delivery during 1913. State what you can supply and quote price or we will make offer. Box 622, Canada Lumberman, Toronto, Ont.

Birch Wanted

We desire to buy 100 M. to half million feet 4/4, 5/4, 6/4, and 8/4 log run No. 2 common and better Unselected Birch. For sufficient quantity will send representative to load stock. Terms cash upon inspection. Apply to Louisville Point Lumber Company, Louisville, Ky. 20-43

Lumber Wanted

Four, five and six quarter, Spruce, Hemlock and Norway, four, six, eight and ten inches wide, rough, also surfaced. White Pine Mill Culls and Lath. Box 615, Canada Lumberman & Woodworker, Toronto, Ont. 20-34

We use yearly five hundred thousand to one million feet of Birch, Basswood and Ash in our business and are open to contract with responsible mill men for same. We would be willing to advance money on the logs and also on lumber as sawn. Write us, Manufacturer, Box 619, Canada Lumberman, Toronto, Ont. 20-37 T.F.

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4½ in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

FOR SALE—LUMBER, ETC.

For Quick Sale

700 Acres Virgin Timber, Hardwoods, Hemlock. Estimate Five Million Feet. Owner must sell at once. Price, Four Thousand, half cash, balance two years, or $3,500 spot cash. This is a snap. Easy to take out. Contractor has offered to take off and put in lumber at track for about $11 per M. feet. Apply Box 598, Canada Lumberman, Toronto, Ont. 19-22-20

For Sale

For quick shipment, 100 M. ft. 2-in. Birch, December, 1911, cut. No. 2 C. & B. at $20 per M. on cars. Farm Point, Que. Hall Bros., 174 Mutual Street, Toronto, Ont. 16t.f.

For Sale

Five thousand pieces small posts, 3-in. to 4½-in. top, peeled and in good shipping condition. The Baker Lumber Company, Lindsay, Ont. 20-23-30

Cedar Shingles

Four carloads XX 16-in. Cedar Shingles, retailing at $1.75 per M. Price in car lots $1.15 at mill, C. P. R. or G. T. R. Lindsay, Ont., for quick sale. Terms 30 days net. Box 279, Lindsay, Ont. 19-22-24

Lumber For Sale

4 cars 1-in. good cedar for boat building.
100,000 ft. 2 x 6 mill run hemlock.
100,000 ft. 2 x 8 mill run hemlock.
4 cars 2-in. white oak, sound and square edge. Apply to Geo. C. Goodfellow.
C Montreal, Que.

For Sale

We have the following stocks of lumber piled where it is necessary for us to move it quickly on account of our insurance. We offer it at attractive prices for quick sale.

3,500 ft. 5/4 No. 2 shop.
4,500 ft. 5/4 No. 3 shop.
4,000 ft. 5/4 stained saps.
8,500 ft. 5/4 outs from fine com. and bet.
20,000 ft. 5/4 No. 1 mill lumber.
14,000 ft. 5/4 No. 1 barn.
7,000 ft. 6/4 No. 1 barn.
8,500 ft. 5/4 No. 2 barn.
4,000 ft. 6/4 No. 2 barn.
58,000 ft. 5/4 No. 3 barn.
20,000 ft. 6/4 No. 3 barn.
3,000 ft. 5/4 No. 1 box.
13,500 ft. 5/4 x 5-in. mill run.
6,000 ft. 6/4 x 4-in. mill run.

Write or wire for quotations, Cleveland-Sarnia Saw Mills Company, Limited, Sarnia, Ont. 20-41

WANTED—MACHINERY, ETC.

Tramway Steel Wanted

Car load of 12-lb. Tramway Steel. Write particulars and best price. Mutchenbacker Bros., Mafeking, Man. 19-20-15

FOR SALE—MACHINERY, ETC.

For Sale

Two Steam Engines, Boilers, Saw Mill Machinery and Barkers, all in good condition. Apply The East Canada Power & Pulp Company, Limited, Murray Bay, P.Q. 20-22-38

For Sale

Established Lumber Business on main line Northern Division G. T. R., up-to-date circular mill, steam feed, edger, trimmer, etc. Capacity 20 to 25 M. per day. About 650 acres well timbered with Hemlock, Birch, Maple, etc., etc. Good roads all through bush. Down grade to mill. Private siding at mill. Box 587, Canada Lumberman, Toronto, Ont. 19-20-11

Saw Mill For Sale

Huntsville Lumbed Company, Limited, will in the future only run one of their two double cutting Band Mills, which is now cutting fifty thousand feet per day.

They will sell the same with engine, boilers and all other machinery along with building. Also will sell blacksmith's tools and a number of saw-log sleighs and chains.

Huntsville Lumber Company, Ltd.
20-21-42 Huntsville, Ont.

Camp Outfit For Sale

Complete Camp Outfit for sale, including:
Six set of New Log Sleighs, complete
Four set of Old Log Sleighs, complete.
Snow Plough.
Tank Sleighs.
Stoves.
Blacksmith's Outfit.
Anchors, Chains, Etc.

The Cavendish Lumber Company, Ltd.,
20-22-33 Lakefield, Ont.

WANTED—EMPLOYMENT

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

Wanted position as band saw filer to finish this season cut with the consideration of work next season. Can show first-class references. Reply to Box 620, Canada Lumberman, Toronto, Ont. 20-22-21

Advertiser, with practical knowledge of the lumber business, wants positio nas Manager of a lumber yard in Ontario or live town in Canadian West. Have best of references. Box 623, Canada Lumberman, Toronto, Ont. 20-40

WANTED—Position by young man as sawmill office manager or shipper. Ten years' experience with largest hemlock concern in East. References A.1. Address Box 560, Canada Lumberman & Woodworker, Toronto, Ont. 17-20

Wanted

A position as mill superintendent. Have years of experience handling men in Sash, Door and Planing Mill business, can estimate and handle plans of any kind. Reply Box 612, Canada Lumberman & Woodworker, Toronto, Ont. 20-21-32

Thoroughly experienced office man. Canadian, age thirty-five, married. Expert bookkeeper and cost accountant, sawmill, wholesale and box factory. Experienced selling yellow pine; also seven years experience white pine, United States and Canada. Desire change to healthy location with good schools. Prefer position as assistant manager or office manager. Haven't lost a day in thirteen years. Reply, Box 613, Canada Lumberman, Toronto, Ont. 20-22-31

WANTED—EMPLOYEES

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—Salesman with some knowledge of measuring and inspecting lumber, age from twenty-five to thirty-five years. Apply Box 568, Canada Lumberman, Toronto, Ont. 18-21-2

BUSINESS OPPORTUNITIES

WANTED—To hear from Box Mills in position to furnish boxes in car loads. Apply to Geo. B. Breon, Williamsport, Pa. 17-20

For Sale

Established Lumber Business, with first-class mill, now running full time. Timber limits with 20 to 30 million feet of standing pine timber conveniently located, and all merchandise, etc. Price $55,000. This is worthy of investigation. Address Box 332, Canada Lumberman, Toronto, Ont. 19-22-t.f.

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 115 h.p. boiler, 100 h.p. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water.

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

Baughman's Buyer and Seller

The twelfth edition of the handy book for lumbermen just out. Revised, improved; see the new side tables, the metric system, tapering timber, to figure narrow flooring, moulding and box work, etc., five sections each indexed and separate work. Every page worth the price of the book. The book that talks to lumbermen. Not millions but more than seventy-five thousand copies have been sold to lumbermen. Bound in red flexible leather cover, $2.50 per copy prepaid. Orders mailed day received. Address H. R. A. Baughman, Indianaoplis, Ind. 19-22-18

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest, if your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf.

PARTNERS WANTED

The advertiser has just built and equipped the best plant in Canada for the manufacture of doors and boxes, and wants one or two good men with capital to join him, either a man to take the financial end and office work, or one with a good knowledge of the manufacturing end of the business. The trade in boxes will be local, but doors will be shipped to all parts of Canada as well as to England. There is not a large specialized door factory like this one in Canada to-day. The demand for doors is increasing rapidly, and car loads are daily being brought from the States which can be filled by a good Canadian plant. All correspondence will be treated confidentially. Address Box 600, Canada Lumberman & Woodworker, Toronto, Ont. 19-21-25

Auction Sale of Valuable Timber Limits and Equipment

On Friday, November 15th, at 2 p.m., in Room "G," King Edward Hotel, Toronto, the timber on the following limits, held under license from the Ontario Government, will be disposed of absolutely without reserve, for the purpose of closing out an Estate:—

The N.E. ¼ Township of Mills.
Berth No. 2 Lount.
Berth No. 3 Pringle.
Berth No. 4 Pringle.

At the same time a complete Camp outfit will also be offered without reserve.

The Limits will be sold either separately or en bloc.

For all necessary information apply to

UNION BANK OF CANADA,
Eastern Superintendent's Dept.,
20-21-36 Toronto, Ont.

Important Sale of Valuable Timber Limits

Sealed tenders will be received by the undersigned up to and including the **20th day of December, 1912**, for the purchase of:

Limit No. 194 of 1873-74—River Jean de Terre—tributary to the Gatineau, containing an area of fifty (50) square miles, more or less.

Limit No. 195 of 1873-74—River Jean de Terre—tributary to the Gatineau—Island Lake, containing an area of fifty (50) square miles, more or less.

These limits comprise some of the best pine and pulpwood areas in the Province of Quebec.

Map showing location of these timber limits and report thereon may be inspected at the offices of the undersigned and from whom further information may be obtained.

The highest or any tender not necessarily accepted, and the acceptance of any tender will be subject to the approval of the Court.

The Toronto General Trusts Corporation,
30 Slgin Street, Ottawa, Ont.
or
Messrs. Aylen & Duclos, Barristers,
Castle Building, Ottawa, Ont.
or
Messrs. Belcourt & Ritchie, Barristers,
Castle Building, Ottawa, Ont.

Dated Ottawa, Aug. 5, 1912. 16-22-35

For Sale—A Snap

Ten sets Sleighs. Runners 4-in. x 7-ft., 5 ft. wide. Bunks 8 x 9 x 8 ft. Bench 9 x 10 x 6 ft. $15.00 per set. Box 603, Canada Lumberman, Toronto, Ont. 20-23-27

Grinding Log and Band Resaw Wheels

Owing to the considerable tension of the saw blades on the wheels the wear on the wheel faces is often considerable, and to secure good work and an even bedding for the saw they should be ground to a dead true surface periodically, say, not less than once a year, says the Timber Trades Journal. The concensus of opinion is now in favor of a perfectly flat wheel face, and this should be obtained by grinding the wheels mounted on their own spindles till they have both a perfect running and standing balance. The greatest amount of wear will usually be found near the tooth edges of the wheels, more particularly on the lower or driving wheel, where there is a greater accumulation of dust and an increased driving strain on the blade. Should the front edges of the wheels be allowed to wear the strain on the blade is thrown towards its back, and the teeth edge of the saw, being slack, will be liable to "snake" and cut untrue, and at the same time twists and cracks in the blade may be set up. We are afraid the periodical trueing up of saw wheels is sometimes neglected, and the saws are wrongly blamed for turning out bad work.

There are two systems in general use for grinding up band wheels—viz., an ordinary grinding lathe equipped with an emery wheel or a separate portable grinding machine in which the emery wheel is feathered on a spindle and driven by the frictional contact of the emery wheel with the band wheel face which is set in motion. The latter plan is the simplest and cheapest, and if the girder is subsequently made and properly applied it is quite effective. In addition to the emery wheel the grinder should be fitted with a turning tool attachment, as, should the band wheels be much out of true, a good deal of time may be saved by taking a light preliminary cut with the turning tool, the wheel face being afterwards finished by the emery wheel. The grinding machine should be of very substantial construction, and provided with a single lateral feed and two independent direct feeds, one for the emery wheel and one for the turning tool, so that they may be used independently or together if desired.

Notes on Hardening Steel Cutters

It is impossible to give exact instructions as to the hardening of cutters, as the amount of heat required to harden different samples of steel varies considerably. The exact temper necessary can only be ascertained by one or more trials. The following notes on tempering are given by Powis Bale, who says:—"It is very important that all cutters be heated as evenly as possible. In heating cutters for tempering they should be repeatedly turned over in the flame or fire and withdrawn from it now and then. In tempering any kind of cutting tools care should be taken that there is a gradual shading of color. If there is a distinct line between the colors it is liable to chip at this line. The point to aim at is to have the edge of the cutter tolerably hard, and this hardness to be gradually reduced the further you get from the cutting edge.

"The process of tempering should be gradual, as the steel becomes toughened better by slow heating than if the process be performed abruptly. When the proper heat has been reached the tool should be removed from the fire and not allowed to "soak," as is sometimes done.

"Bear in mind in tempering steel any excess of heat over what is absolutely necessary is detrimental, as it opens and makes the grain of the steel coarse. The right color to temper to varies with the nature of the steel and the hardness required. With ordinary steels a brown yellow slightly tinged with purple is usually suitable. When the exact shade of color has arrived dip and withdraw the tool several times; and do not plunge it at once into the hardening mixture or water. The following mixture can be recommended for tempering: Take four parts of powdered yellow resin and two parts of train oil, carefully mix them, and add one part of heated tallow. The object to be hardened is dipped into this and allowed to remain till quite cold. Without having previously cleaned it, the steel is again put into the fire, and is then cooled in boiled water in the usual way. With some grades of steel salt water has been found an excellent hardening mixture."—Timber Trades Journal.

Sawmill Refuse as Fuel

"The Value of Sawmill Refuse as a Fuel in Gas Producers," is the title of an interesting paper which was recently read before the Association of Engineering Societies in America, by Mr. Charles E. Snypp. In the course of the paper the author remarks: "The refuse that we use is known as 'cypress hog.' It consists of about fifty per cent. of sawdust and fifty per cent. of chips such as are discharged from the 'hog,' which is a machine used by sawmills to destroy their refuse. This material runs from 30 to 55 per cent. moisture, and this moisture seems to be necessary for best working conditions. We have to guard against the sawdust blowing over into the pipes which conduct the gases to the wet scrubber. This is probably a local trouble, due, no doubt, to the strength of the blast that we use in order to get capacity. We have been able to realize full capacity using sawmill refuse, and our engines deliver a brake horse-power on about 4½ lb. of this fuel. The changes necessary to fire sawmill refuse are merely the removing of the coal dump hoppers and substituting a hollow cylinder about 10 ft. high, slightly tapered and made larger at the bottom, and fitted with a slide gate at both top and bottom. These slides are worked with levers and the sawmill refuse is locked into the producers through these tubes. To start firing a producer with sawmill refuse it is not necessary to have an underlying bed of cinders or ash to cover the blast pipe."

Woods for Pattern-Making

Some interesting data concerning the relative merits of the different woods employed for pattern-making purposes has resulted from investigations at several large American pattern shops. These go to show that the woods chiefly used are Canadian pine, cherry, and mahogany. Canadian pine has always been used primarily in the manufacture of patterns, and still furnishes the principal supply of material for this purpose. Owing to the high price, however, California sugar pine is substituted to a considerable extent in many American shops where large castings are made. Sugar pine is regarded as the best substitute there is for Canadian pine, but it is not as satisfactory for the reason that the tiny "sugar streaks" in this wood are prone to ooze resin even through the varnish finish, which often results in a tough casting.

It has been estimated that patterns made in cherry and mahogany can be used several thousand times, whereas American pattern-makers say a softwood pattern would endure only about one-quarter as long a period. Constant use will gradually wear off the sharp edges that are all-important in the forming of an accurate mould. When this occurs the usual remedy is to chamfer down the blunted corners and set in duplicates of cherry or mahogany. In core boxes, it is a common practice to glue a hardwood veneer over the pine. Only small or delicate patterns that are liable to be subjected to unusual wear are always made of hardwoods. The larger patterns, such as gear wheels, have their teeth made of hardwood, and the frame work of pine. Generally speaking, any wood that tends to either shrink or swell is poor material for pattern-making.—Timber.

Power Lost in Transmission

We have had some interesting reading and figures on the above subject lately. We have been shown that engineers reckon on 3 to 6 per cent. for shafting losses, while there are cases on record of 69.9 per cent. h.p. being lost. Why is that? some may say. The engineer's allowance of 3 to 6 per cent. must be totally inadequate. No doubt it would have been considered a very small percentage some few years ago, when plain bearings and heavy iron shafts were in universal use. To-day it is to my mind quite ample, providing care has been exercised in the purchase choice of power transmission materials — steel shafts, roller or ball bearings, etc., etc., and what is even more important is having a capable man to instal or erect your power equipment. Any handy-man can rig up a line of shafting, but a practical and experienced millwright should be employed if you want a good job and want to run your plant economically.

The most important point of all, however, is the placing of machines or tools. This is an expert's work, while there are a few consulting engineers who have made woodworking machinery plants their specialty. I have been fortunate enough to observe the improvements that have been made in various factories simply by placing the machines correctly. It all sounds so very simple and very easy that we cannot wonder at many mill owners trying it themselves and finding out when too late that they had put their foot in it.

Now my point is simply this. Power can be transmitted in any factory at five per cent. loss if expert advice is obtained and acted upon—direct drives, group drives, step loose pulleys, friction clutches, roller and or ball bearings, solid foundations, good belts, etc. All those items help toward the economical transmission of power, but it wants a capable man to arrange the plant properly.

A great artist was once asked how he produced such beautiful pictures. He replied "Simply get the right color and put it in the right place."—J. M. N. in "Timber."

Notwithstanding the many disappointing undertakings in the way of making hardwood small dimension stock of various kinds, the quantity of this class of material used is increasing right along. Some make a success of this work as a separate and independent institution, but it seems that the greatest success in making small dimension is in doing it as a side issue to sawmilling. It is an opening that should appeal especially to small sawmill men.

We have the following stocks in good shipping condition.
1-in. Birch, No. 1 com. and better, 167,000 ft.
1-in. Birch, No. 2 com. and better, 70,000 ft.
1¼-in. Birch, No. 1 com. and bet., 30,000 ft.
1½-in. Birch, No. 1 com. and bet., 30,000 ft.
2-in. Birch, No. 1 com. and better, 30,000 ft.
3-in. Birch, No. 1 com. and better, 30,000 ft.
1-in. Maple, No. 2 com. and bet., 60,000 ft.
1½-in. Maple, No. 1 com. and bet., 70,000 ft.
3-in. S. Elm, No. 1 com. and bet., 39,000 ft.
2-in. S. Elm, No. 1 com. and bet., 12,000 ft.
1-in. White Bass, 10,000 ft.
1½-in. White Bass, 1,000 ft.
Want to buy Elm and Hemlock.
Please let us hear from you.
The Meaford Lumber Company
Toronto office 539 Lansdowne Avenue.

Review of Current Trade Conditions

Ontario

There has been very little change in the lumber situation generally during the past two weeks. Owing to the wet weather which has been experienced of late, work in the woods has been very expensive. There is also a scarcity of labor and men who are willing to work are demanding high wages. The situation in this respect may improve somewhat in the next few weeks if work in the towns and cities becomes scarce owing to building operations being suspended, but should the weather remain open, very little relief is to be expected.

Little or no improvement has been found in the car situation and from all the reports received it is difficult to ascertain whether the shortage is more acute in the east or in the west.

The United States demand is still very strong and the export market has a tendency to improve very materially.

The hardwood market is very firm and trade good. There is an almost unprecedented demand for the lower grades and undoubtedly the coming winter will see all the yards clearer of low-grade stocks than ever before. Desirable stocks in all thin sizes of birch such as 1 in., 1¼ in., 1½ in. and 2 in. are very scarce. So also are 1 in. ash and 1 in. elm. Prices may be expected to go up in these lines.

The higher and lower grades of white pine are active, but the intermediate grades are moving very slowly.

There does not seem to be any likelihood of a fall in the demand for all kinds of lumber. Present indications are that prices may be expected to remain firm if they do not increase materially. The heavy demand this year will undoubtedly have a bearing on next year's supply and a considerable shortage is freely expected by some members of the trade for some time to come.

Eastern Canada

If it were not for the unprecedented shortage of cars for shipment of lumber, the trade in Eastern Canada would be enjoying to-day, more activity than it has experienced for some months past. Reports from Montreal are of an excellent demand for all kinds of lumber and an exasperating difficulty in delivering stocks to customers. There are, in fact, still on the books to-day, orders for stocks which were given to mills as far back as July and which are still unfilled. Prices in general are firm and stocks which can be shipped are scarce. At Montreal there is a particularly good demand for one-inch spruce.

Reports from Boston indicate a firmer tone in the demand for eastern spruce. Manufacturers are suggesting an increase in price, but the demand has not quite warranted one as yet. A few frames are being held at $25, but $24.50 is the general price. Retail yards are carrying moderate stocks and will be obliged to buy if the fall demand is at all active. There is a fair demand for random at Boston and prices are steady. Dealers are asking $22 and $22.50 for 2 x 4. Spruce covering boards are in good demand and stocks offered are light. Hardwoods are firm at Boston with stocks light. There is a fair demand for quartered oak and prices are firm. Plain oak is steady and in good demand. Thick stocks of brown ash are selling well and stocks are light. There is a fair demand for maple and also for birch.

At New York a good demand is reported for eastern spruce from the retail yards. Prices are steady and stocks seem to be well assorted. Spruce lath are strong. Hemlock prices at Boston are about $23 for eastern clipped boards. Offerings of dry lumber are small. New York hemlock prices are firm and stocks are light. Mill men are reported to be in control of the situation.

Great Britain

Many features of interest to the lumber trade are to be noticed in Great Britain to-day and probably the most important of these is the fact that the ship-building industry is enjoying remarkable prosperity. Ship-builders have found it practically impossible to guarantee delivery by any given date and as a result the price of new vessels has advanced of late from £6 to as much as £8 per ton. In spite of this the demand for new vessels shows no indication of decreasing. Another feature of the excellent demand for lumber, is the fact that the box-making trade is busier than it has been for years and buyers are finding it difficult to secure stocks of spruce. Stocks of spruce in fact are lighter to-day than they have been for many years past and every small shipment arriving is quickly taken up at full prices. At Glasgow the demand for spruce deals is exceptionally strong with prices ranging from £8 12s 6d to £8 14s for 3-in. x 6-in., 3-in. x 7-in. and 3-in. x 8-in., with a few 3-in. x 9-in. included. For 3-in. x 5-in., the price is steady at £8 5s. At present very little Riga spruce is coming into the Glasgow markets.

A strong demand continues at Glasgow for first-class Quebec birch logs. Stocks have practically been reduced to nothing. Prices at present are 1s 9½d to 1s 10d for 14-in. average; 1s 11d to 2s for 16-in. average, ex quay Glasgow. An improvement is reported at Glasgow in the demand for first class waney pine. Prices, however, are still rather low. Practically all varieties of Canadian timber and lumber are in good demand at Glasgow and the indications are that a record year's business will be shown at the end of 1912.

At London a fair amount of business is reported of late. Overside deliveries are exceptionally brisk and stocks are not accumulating extensively. Values as a rule remain steady.

Deliveries at London docks for the week ending September 21st amounted to 8,939 standards, as compared with 5,289 standards during the corresponding week of 1911.

Reports from Liverpool all indicate that the general trade of the country is in an excellent condition and yet the timber trade does not seem to have felt the improvement to anything like the same extent as other branches of commerce. Offerings of spruce deals for arrival are very light. Shippers are apparently playing a waiting game. Holders of stocks of spruce deals seem to be following suit and are not selling at present unless they obtain full prices. Unquestionably prices will not last long at their present level. Arrivals of pine deals are about up to the average in quantity, but the trade is rather quiet on account of the high prices. Freights continue to rule high with little indication of a decline. Freights which were around 35s to 40s per standard not so many months ago, are to-day around 60s to 70s per standard, and in spite of the high prices, tonnage is difficult to secure. At Manchester, trade is reported quieter as a result of the completion of many of the building contracts.

United States

Reports from the principal lumber consuming points in the United States show that extensive demand for lumber is still continuing. The furniture factories in particular are filled with orders up to their capacities. Wholesale lumbermen report that the greater part of their orders are for immediate delivery. Contractors and builders are using great quantities of lumber and the present excellent weather conditions are encouraging the utmost activity in building operations.

Chicago:—The trade in northern pine is exceptionally brisk and it is a difficult matter to secure sufficient stocks. Assortments are very difficult to make up satisfactorily. The whole story with the wholesalers is that they find it much more difficult to secure lumber than to sell it. The entire range of prices is exceptionally firm. In the hardwood trade the most noticeable feature is the fact that lower grades are moving actively. Stocks of low grades show no indication of accumulating. Yards and factories are sending in orders steadily and factories are also in the market for large supplies. Plain oak is very firm both in regard to demand and price. A fairly active trade is reported in quartered white oak and prices are a little stronger than they recently were. Among the northern woods, birch is the leader and prices are firm. Maple is also quite active. There is a fair demand for rock elm and soft elm and stocks are scarce. Basswood is moving actively, except in No. 1 common. Manufacturers of maple flooring report plentiful orders. The demand for hemlock continues very strong. It is expected that at the close of the season, stocks in manufacturers hands will be smaller than they have been for several years. Manufacturers ars showing a tendency to conserve their stocks and hold out for higher prices. The demand for southern pine yard stock is rather quiet at Chicago. Manufacturers' agents however, are taking it easy and not trying to force sales, as the car shortage has made it almost impossible for them to fill orders. All prices are firm. The demand for red cedar shingles has shown a slight decrease during the past fortnight. Clears are bringing $3.72 and stars $3.34, Chicago basis. The trade in white cedar shingles continues satisfactory with prices firm. Lath are strong and in good demand.

Buffalo:—The demand for northern pine continues fair in all grades, with the heaviest enquiry for the upper and lower grades. Stocks of these are small and prices are strong, and there is considerable doubt as to whether stocks of pattern lumber will be plentiful enough to last through the winter. It is believed to be certain that prices of pattern lumber will advance. There is also a probability that box manufacturers will experience some difficulty in securing their stocks. The demand for hardwood has improved during the past fortnight and now covers a large range of orders. Yard stocks are in good condition. Maple and birch are particularly active. The same conditions apply to the hardwood trade at North Tonawanda. Hemlock prices were recently advanced 50c. by the Pennsylvania mills. This is the fourth advance during the past

Partial view of booming ground and timber yards

BIG VALUES

Lumber buyers looking for Big Values will find our stock equal to the most critical demands because we do not manufacture finish or mouldings, allowing our Upper grades to go into boards or rough stock.

We want a chance to quote you on

Norway and White Pine Lumber and Lath,

Heavy Timbers up to 60 ft. in Pine and B. C. Fir

"RUSH ORDERS RUSHED"

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

A. F. Holden, Pres. J. M. Diver, Vice Pres. and Gen'l. Mgr. E. C. Barre, Ass't. Mgr.

twelve months. The demand is quite active and available stocks are smaller than they have been for years. Michigan manufacturers are also asking higher prices and their stocks are growing scarce. North Tonawanda shippers will not be able to secure sufficient stocks of hemlock for winter consumption. Only those dealers who made plentiful purchases during the early part of the year are now able to offer hemlock. The situation in connection with North Carolina pine at Buffalo is quite acute. Consumers are ready to take whatever they can get if they are sure of prompt shipments and it is a hard matter to get hold of any considerable amount of stock. The demand for shingle and lath continues strong with prices above the customary level for this time of year.

Market Correspondence

Ottawa Lumber Trade in Good Shape

Ottawa, October 7th.:—(Special correspondence of the Canada Lumberman). With the approach of winter the prospects for a record business during the next few months were never brighter in the history of Ottawa. This is the testimony of the leading lumbermen in the city and district.

"Prices were never better and the business outlook never brighter than at present," says Mr. Gordon Edwards, general manager of the W. C. Edwards Lumber Company. This is corroborated by many others in the trade. All this season's cut in the woods has been sold by J. R. Booth. The James Davidson Estate have enough orders on their books to keep them going until Christmas. Most of their men are working overtime three nights a week. An order for several thousand boxes has just been secured from Dominion Canners Ltd.

George M. Mason Ltd. report that they were never so busy as they are now. The orders they have on hand will keep them busy until towards the end of January.

The number of men going to the lumber camps from Ottawa and district will be considerably less this year than in previous years. The reason for this is that there are now more logs on the Ottawa river than ever before. Within the last few months three big lumber mills were burnt down, in the Ontario district and many logs which otherwise would have gone to these mills are coming down to the mills along the Ottawa.

J. R. Booth will have 12 camps less this year than last, so that, as the average number of men in a camp is 125, these 12 camps will mean a difference of 1,600 men. For several years Mr. Booth has been putting more logs into the water each year than the mills at the Chaudiere could cut and the result is that he does not require so many from the woods this year. It is said that if he did not put a log in the water for the next three years he would have enough with those in the Ottawa now, to keep his mills busy for that time.

Wages this year for lumberjacks are a little more than they have ever been before. The average for good men is from $30 to $35 a month with board and transportation. But experienced men are scarce. "Greenhorns" are swarming into the offices of employment agents here, wanting to be sent to the woods, only to be turned away when it is learned that they cannot use an axe or make themselves handy around the shanties. There is a great demand for horses for the camps and the supply is not able to meet it.

A Large New Forest Reserve

The Forestry Department of the Dominion Government has decided to set apart this year, several new forest reserves. The largest of these will be on the shores of Lesser Slave Lake, near the Peace River district. It will measure about 4,788 square miles and contains about 350,000,000 ft. of good timber. The reservation is recommended as a reserve supply for that section of the country, to meet its requirements, when, at a future date, it is more thickly settled than at present. Another reserve will be near Lake La Biche, Alberta, another in Northern Saskatchewan, one in Manitoba and the pine forest reserve north of Prince Albert, Sask., with others in British Columbia will be extended.

It is officially announced that the Riordon Pulp and Paper Company of Hawkesbury, Ont., will shortly issue $1,500,000 in bonds. A number of prominent Ottawa capitalists are interested in the Riordon company, which, it will be remembered, recently secured control of the business of G. H. Perley & Company. The company controls 1,184 square miles of timber limits in Quebec valued at nearly two million dollars.

The Car Shortage—Relief Promised

The shortage of cars is making itself felt to the inconvenience of lumbermen in Ottawa. Until about two weeks ago the teamsters employed by the C. P. R. in Ottawa were on strike for about two months and during that time freight became badly congested. The strike is now over, but the C. P. R. is not yet handling freight in a normal way. Lumbermen have been unable to obtain all the cars they required for some time. Immediate relief, however, is promised by the railroads.

The Canadian Trade Commissioner in Norway reports that mechanical wood pulp has recently increased in price there and is now quoted at $9.60 per ton as the lowest price.

Canada exported during the 12 months ending July last, timber to the value of $41,092,560 as compared with $42,992,252 in 1911.

The E. B. Eddy Company is assisting the city of Hull to build a long model road in one of the suburbs of the city.

Senator W. C. Edwards, head of the W. C. Edwards Lumber Company of Ottawa, accompanied Sir Wilfrid Laurier to Cornwall on Monday, September 30th, where the ex-premier opened his political tour of Old Ontario.

Mr. J. R. Booth, of Ottawa, has given permission to Messrs. Laurin & Leitch of Montreal (contractors for repairing the intake pipe under Nepean Bay through which the city of Ottawa gets its water supply) to help themselves to any timber in the booms they want for the work. Mr. Booth has told the contractors that they need not discriminate in their choice. His object in allowing this privilege is to render what assistance he can so that Ottawa will soon have a pure water supply.

At the recent convention of the Canadian Manufacturers' Association held in Ottawa, Mr. Gordon Edwards, of the W. C. Edwards Lumber Company, was chairman of the banquet committee, and his father, Senator Edwards, was chairman of the reception committee. On the last day of the convention Mr. W. H. Rowley, general manager of the E. B. Eddy Company, gave a garden party at his home, Stadacona Hall, to the delegates and a number of other prominent people among whom were Premier and Mrs. Borden, Sir Wilfrid and Lady Laurier, Chief Justice Sir Charles and Lady Fitzpatrick, His Grace Archbishop and Mrs. Hamilton, and others.

Steady Trade at Montreal—Car Shortage Continues

Montreal, Oct 10th; (Special correspondence of the Canada Lumberman).—There is still an excellent demand for all kinds of lumber, the only unfavorable feature being the continued shortage of cars. Some orders given to the mills as far back as July are still unfilled, and one wholesaler could only obtain 17 out of 80 cars ordered last month. The outlook is far from satisfactory in this respect. The transportation department of the Board of Trade has taken up the question of the embargo put by the C. P. R. on cars of the C. N. R., Grand Trunk, and Intercolonial Companies consigned to the C. P. R. terminals. This only affects cases where public track deliveries are concerned, and does not apply to private sidings. Representations have been made to the Railway Commissioners at Ottawa, it being contended that the C. P. R. is acting illegally in enforcing the embargo. The C. P. R. state they have quite enough to do to handle their own traffic without taking care of that of the other companies.

This condition naturally tends to a scarcity of lumber, and also to keep prices very firm. There is practically no outstanding market feature, with the exception that there is an exceptionally good call for spruce, especially one inch.

A lot of construction work is still going on and many important projects are under consideration. The building permits for last month show a gain of $988,142 as compared with the corresponding period last year, the total being $2,146,018. For the nine months the total is $13,325,394, an increase of $1,815,964.

Canal barges are very plentiful, and the mills in the province are shipping as much as possible by this means of transportation. It is stated that the export of pulp wood is showing a falling off, and that it has resulted in an unusual number of barges being free, for this time of the year.

The exporters to Great Britain and the European continent are rushing their lumber to the other side, in anticipation of the closing of navigation, but operations have lately been greatly interfered with by the heavy rains.

Decreased Cut on the North Shore

Thessalon, Ont., Oct. 2; (Special correspondence of the Canada Lumberman)—There will be a large decrease in the output of logs in this district this season. Some of the firms have got through and others are not doing so much owing to the scarcity of labor and the high cost of supplies. The lumber market is very good, particularly for culls and red pine, which are bringing record prices.

The Edward Hines Lumber Company, of Chicago, are at present examining the limits of the Thessalon Lumber Company with a view to the purchase of the entire plant. We would like to see such firms as the Edward Hines Company making investments on the north shore. We also had Graves Bigwood & Company here looking over

SIMONDS

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SAWS

A picture don't show it — can not show it. But when it comes to quality *it's there.*

Simonds Inserted Point Saws are

MADE OF SIMONDS STEEL

which insures a good blade. Points and Shanks are scientifically and correctly designed. Machine milled, making them fit firmly in the plate. Yet, Points can be easily inserted or removed. Here's a saw that will stand heavy feed. Will run well in Frozen Timber. Will give you the satisfaction and service that you have a right to expect from an Inserted Point Saw. All Simonds Inserted Tooth Saws, Splitting Saws, Rift Saws, and Groovers are fully warranted. Get further details about them.

Especially prompt deliveries on standard sizes. Write any branch.

SIMONDS CANADA SAW COMPANY, LTD.

VANCOUVER, B. C. MONTREAL, P. Q. ST. JOHN, N. B.

some timber limits and if we have the good fortune to have these firms locate here it will be a great benefit to the business on the shore.

The mills are running full time and will run until the lake freezes and the ice makes.

The Thessalon Lumber Company are sawing for the Hope Lumber Company, the latter having had the misfortune to have their mill burnt down. The mills at Bruce Mines and also the Spanish Mills Company are cutting for the same people.

Lumber is being shipped as fast as boats can be secured to carry it and some cargoes have been shipped during the summer almost green.

Wages in the woods run from $30 to $35 per month and fare from Montreal, which is $20 more, so that the labor question is a serious problem.—Algoma.

Steady Trade at Quebec

Quebec, October 9; (special correspondence of the Canada Lumberman):—Business in timber and lumber is not booming here at present although there is a good steady trade. A good deal of square timber and deals is leaving here for Europe, while the shipments of pulpwood from this port and the lower St. Lawrence continues very brisk.

The Chicoutimi Lumber and Pulp Company has just concluded a contract with an English firm for 50,000 tons of pulp, shipment of 5,000 tons to be made each year for ten years to Queensboro on the Thames near London. The prices agreed on have been kept private.

A number of paper makers arrived here from England during the past week. They are going to work in the new mills at Jonquiere on the Saguenay. There are three hundred yet to arrive. These, with their families, will start quite a village in the district.

Prices for pulpwood remain steady at $7.50 to $9.25 per cord.

Spruce Deals Higher in England

In reference to the market for spruce deals in England the Timber Trades Journal in a recent issue says: The c.i.f. spruce market has strengthened since our last report; advanced prices have been paid for the small quantity offered, and we understand that these prices are not yet at the top. This may be all right, but there is not much room for further advances, otherwise it will put a stop to business for this class of wood. It is at more than its intrinsic value now, and, compared with Baltic whites, it is stiff. In view of the probable continuation of high freights, if shippers intend to sell they will have to reconsider their ideas of f.o.b. values to balance the advances in transport rates; otherwise spruce will become prohibitive.

Exceptional Scarcity of Stocks at Tonawanda

The Tonawandas, N.Y., Oct. 7.—(Special correspondence of the Canada Lumberman): There is little change in the local market with regard to Canadian stock, from a fortnight ago, unless lath and shingles are harder to get and the coarser grades of lumber such as No. 3, 4 and 5 boards are scarcer. A local dealer who handles Canadian stock exclusively said to-day that building is so brisk in Canada that there are practically no lath or shingles on the market for the wholesaler. The cut of all the big mills is brought up months in advance and there is no sign of improvement. The result: Canadian shingles and lath are still at the high mark and will, if anything, go higher. There is almost a parallel situation with regard to No. 3, 4 and 5 boards. These coarser grades are being taken in Canada as fast as they are made and buyers of Canadian stock in the States have practically given up hope of buying extensively in these grades any more this fall. The better boards, such as No. 2 and better are fairly plentiful, said the same local dealer. Prices on the latter are stationary and averaging about the same as a year ago. Prices on the coarser grades are of course well up and are $3 and $4 higher than at the same time last fall. Norway pine is another item that is in demand. It brings $3 more a thousand than last fall. This same local dealer, who in his quest for lath, shingles and the coarser stocks goes over the line once a week said. "Building in Canada is absorbing everything. We buyers on this side can't find much stock that has not been spoken for before it is on the way to the mills to be sawed. The building game is wonderfully active and, comparing territory for territory, the United States is running a poor second."

Repairs Completed to Erie Canal

The break in the Erie canal at Bushnell's basin which tied up shipments of lumber for an entire month, is now repaired and cargoes will be moving eastward again tomorrow. The request for an additional two weeks of canal navigation beyond the usual closing date, November 15, is being opposed by barge canal contractors.

Rates of $2.50 from Green Bay and $2.75 from the head of Lake Superior are being paid by lumber shippers beginning October 1, and the prediction is made that the rate will reach $3 before the season closes. There is more lumber moving eastward on the Great Lakes just now than any other period this year and leading shippers predict that the impetus will continue until the last boat is down for 1913.

The customs reports for the month of September show that approximately 50,000,000 feet of lumber arrived at the Tonawandas by vessel. For the same month last year, the total receipts were a few feet more than 47,000,000 feet, which gives September 1912 a better record by nearly 3,000,000 feet than September 1911. The lumber receipts were divided as follows: Tonawandas, 8,867,613 feet as against 13,011,417 feet in September last year. North Tonawanda, 40,984,200 this year as compared with 34,105,700 in September last year.

Among the local firms that have been stocking up heavily is White, Gratwick and Mitchell who have already brought down from upper lake ports and chiefly from Canada, a total of 30,000,000 feet which will be added to largely during the next two months. The Eastern Lumber Company has also received about the same amount. Considerable Canadian stock shipped during the last few days of September in order to escape the increase in shipping rates on October 1 is due to arrive to-day or to-morrow.

Tonawanda Trade Notes

The Frontier Club, headquarters for local and visiting lumbermen, has moved from the Hotel Sheldon block to Webster street where quarters formerly occupied by the Niagara White Pine Association have been leased.

Mr. O. C. Smeaton, retired lumberman, and collector of customs at North Tonawanda, is spending part of his vacation in Canadian cities.

Mr. William T. Charlton, who spends the summer superintending logging operations in Canada, has returned to his home in North Tonawanda.

The prevalence of favorable weather has given an impetus to building all along the Niagara Frontier. A scarcity of labor is the only obstacle to what would otherwise be ideal conditions. The difficulty in getting workers is affecting the cost of handling lumber. Wages are higher than ever in the lumber yards and it is nothing unusual to pay $2, $2.25 and in some instances $2.50 a day for pilers. It isn't so long ago that all the lumber handlers wanted could be had for $1.50 a day. No let up in building is expected until winter makes it impossible to work out of doors. This will probably not be until well into January.

Exports from Fredericton District

United tates Consular Agent W. W. Heard, Fredericton, N.B., recently gave out statistics of the exports from this consular district to the United States as entered at his office for the quarter closing on September 30th. The statement shows a large increase as compared with the same period last year, the amount being almost doubled. For the same quarter in 1911 the total entries amounted to $178,677.52, while for the past quarter the entries amounted to $340,341.46. The increase is largely accounted for by one item, that of spruce lumber, the exports of spruce for the past three months to the United States amounting to $213,179.31, or more than the total exports in the quarter last year.

The items for the past quarter are as follows:

Cedar poles	$ 630.05
Fir	443.15
Hemlock	15,238.87
Laths	24,178.27
Pine	6,408.30
Poplar	96.00
Maple blocks	200.00
Shingles	13,377.22
Ship knees	135.00
Spruce	213,179.31
Lumber, mixed	5,293.75
Birch	195.17
Total	$340,341.46

First of the 1913 Calendars

The McGibbon Lumber Co., Penetanguishene, Ont., have given evidence of their enterprising business methods by distributing to their friends, well in advance, an attractive calendar for the year 1913. As a forerunner of the calendar seoson, the selection of the McGibbon Lumber Co. is most promising. If the balance of the calendars issued for 1913 are up to this standard, the recipients will be exceptionally fortunate. The picture which decorates the calendar is a beautiful reproduction of an oil painting by Kaufman, entitled "The Forest of Montainebleau." The color scheme is a rich representation of the splendor of Autumn.

President and General Manager D. C. CAMERON, Winnipeg
Assistant General Manager WM. ROBERTSON, Vancouver
Secretary-Treasurer, WILSON BELL, Winnipeg

The Rat Portage Lumber Co. Ltd.

Manufacturers of

Fir, Cedar and Spruce

LUMBER

Cedar Shingles, Fir and Cedar Lath

Car Sills and Sheathing, Cedar Siding

Large and Long Timbers
for heavy construction work

Vancouver, B.C., and Harrison River, B.C.

BORDEN'S

St. Charles Brand

Evaporated Milk

Is the old reliable, has always taken the lead and always will.

The BEST for the CAMP, the MINE and the HOME.

Distributed exclusively by the Wholesale Trade

Borden's Milk Co., Limited

Originators of Condensed Milk and Largest Manufacturers of Milk Products in the World.

"LEADERS OF QUALITY" ESTABLISHED 1857

Wm. H. Dunn, Agent - - MONTREAL

Jenckes Boilers

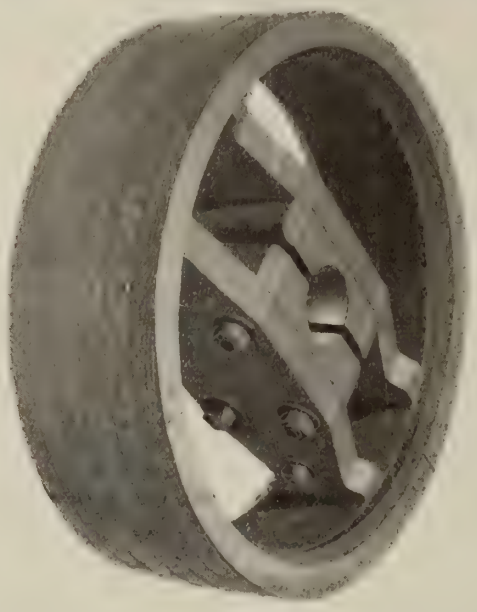
WE aim to keep on hand a well assorted stock of Horizontal Tubular, Vertical and Locomotive Type Boilers. Your enquiry will probably find us in a position to ship the required boiler at once; if not it can quickly be built. Write us anyway.

The Jenckes Machine Co.

Limited

Sherbrooke - Montreal - St. Catharines - Cobalt - South Porcupine - Vancouver - Rossland
Works: Sherbrooke, Que., St. Catharines, Ont.

ELMIRA
Wood Split Pulleys



We have been making these Pulleys for nearly three years and have never had a complaint against the Pulley. If you will try one you will never use any other kind.

Elmira Machinery & Transmission Co.
Limited
ELMIRA - ONT. - CANADA

Eastern Agents—
A. M. ELLICOTT CO., 301 St. James St., Montreal

CEDAR
Shingles

Campbell - MacLaurin Lumber Co.
Limited
Board of Trade Building, MONTREAL

What J. D. Shier says about the Barkey Lumber Register

Barkey Bros., Stouffville, Ont.

Dear Sirs,

Yours to hand and noted. We have been using one of the George Lumber Registers for some years past and find it still working well. It gives very accurate measurements and have never known it to make a mistake. When in need of another we will certainly get one of the same kind.

We remain respectfully yours,

Feb. 5, 1908. J. D. SHIER, Orillia, Ont.

Can be used on any moulding or matching machine.
Ensures absolute accuracy and saves one man measuring.
Sent on 30 days' trial, return at our expense if not satisfactory

BARKEY BROS.
Sole Manufacturers
STOUFFVILLE - ONTARIO

EDGINGS

Ontario

Messrs. Gill & Fortune, who operate a large planing mill at Trenton, Ont., recently suffered a severe loss, when a large frame building containing 30,000 ft. of planed hardwood lumber was destroyed by fire. The origin of the fire is unknown.

F. R. Fisher, Newmarket, Ont., is interested in a new furniture factory which it is proposed to erect at Stouffville, Ont., at a cost of $75,000. The building will be of steel and concrete construction, 200 ft. by 50 ft., and will be equipped for the manufacture of office furniture, fixtures, etc.

The Eastern Trading Co. Limited has been incorporated with a capital stock of $12,00 0to deal in lumber, timber, railway ties and pulpwood of every kind, with head office at Ayer's Cliff, Ont. The incorporators are L. L. Clough, A. A. Clough, and G. M. Rexford, all of Ayer's Cliff.

Hay & Company, Limited, have been incorporated with a capital of $200,000 to carry on business as lumbermen, saw and planing millers, woodworkers, etc., with head office at Woodstock, Ont. The provisional directors are Malcolm Douglas, manager, and Thos. Lyall, manufacturer, of Woodstock, Ont.

Pembroke Shook Mills Limited have been incorporated with a capital of $100,000 to manufacture shooks, packing cases, &c., and deal in lumber and lumber products of all kinds with head office at Pembroke. The provisional directors are J. T. Stuart, H. S. Lees and J. M. Telford, all of Hamilton, Ont.

An offering of the 6 per centfl first mortgage sinking fund bonds of the Toronto Paper Manufacturing Company, Limited, is being made by the Dominion Bond Company, Limited, of Toronto, Montreal, Vancouver and London, England. The total issue is $5,000,000, and, in addition to the bonds, there is outstanding $750,000 in common stock.

The Dennis-Canadian Lumber Company, which holds options on 100,000 acres of timber lands in the province of Ontario, was recently formed at Grand Rapids, Mich., with a capital stock of $500,000. It is estimated that the tract owned by this company contains 800,000,000 ft. of lumber, principally hardwood, and they will shortly erect a mill costing $370,000.

Hon. Adam Beck, of London, Ont., who controls woodworking factories in Montreal, Hamilton and London, for the manufacture of veneer, thin lumber and boxes, is arranging to merge them into one company under the name of the Beck Manufacturing Company, with a capitalization of $500,000. Another plant will be erected in Toronto on the corner of Wilton avenue and River street, at a cost of $60,000. In organizing the new company the co-operative principle will be adopted. The heads of departments, the managers, and employees who have been for a number of years in the company's service, will be given stock and have an opportunity to add to their holdings from time to time.

Benson & Bray, who for the past five years have conducted a planing mill business at Midland, Ont., are erecting a large factory near the site of their present mill, which, when completed, will be one of the largest and most up-to-date on the Georgian Bay. The main building, which is now up, is of solid brick, slow burning mill construction, 240 x 74 feet, two storeys. It is being fitted throughout with the Automatic Sprinkler System of the General Fire Extinguisher Company. Everything is of the most modern construction and the building is being equipped throughout with the latest labor-saving machinery. Private switches running up both sides of the building will give splendid railroad facilities. The firm anticipate having the plant ready for operation by December.

Eastern Canada

The Christie Woodworking Co. Ltd., St. John, N.B., recently suffered loss by fire.

A big pulp and paper mill project is now spoken of for the head of La Poile Bay, on the south coast of Newfoundland. This will have the advantage of an ice-free port, open all the year round. There are great regions of pulp timber in that part of the country.

The Canadian Pulp Mill Machinery Company has completed its organization for the manufacture of a complete line of pulp mill machinery in Canada. The business is under the direction of A. R. Paull, late president and general manager of the Glen Falls Machine Works, Glen Falls, N.Y., who is devoting his entire time to the Canadian end. He is the president and managing director of the Canadian business which have their head offices in Montreal.

The firm of Shearer, Brown & Wills, lumbermen and contractors, Montreal, has been reorganized, Mr. Brown and Mr. Wills withdrawing, and the firm being continued under the name of the James Shearer Co., Ltd. A new planing mill and saw mill have recently been erected.

Mr. J. Gilman Shearer is the president and managing director; Mr. William Smith a director, Mr. S. H. Bell, secretary, and J. W. MacAnally, treasurer.

B. Grier, Limited, Montreal, have given up their retail business, and have sold their stock of timber and lumber in Montreal to a new company recently formed under the name of the Grier Timber Company, Limited, who have also taken over the leases of the yard at William street and the yard adjoining basin No. 4. The office and mill at 1056 Notre Dame street west are now closed and the new address of B. Grier, Limited, is 1006 Eastern Townships Bank Building, Montreal.

The Horwood Lumber Company are erecting a pulp mill at Campbellton, Newfoundland, a milling settlement in the District of Twillingate. The erection of the mill will cost about $250,000. For a number of years the Horwood people have been carrying on an extensive lumbering business at Campbellton, and their new venture is an off-shoot of their old and well-established business. They have a large tract of land thickly wooded with spruce and fir, very suitable for the manufacture of pulp.

Messrs. H. Ramsen and G. Hardy, who planned the Harmsworth and the Albert Reed mills, are now planning another big mill at Glenwood, Newfoundland, on the Gander River, for a party of Americans, of which J. Loizeau, of

New Jersey, is head. Last fall they spent several weeks on the river making the necessary surveys for water power and transport facilities and were so pleased with their observations that they have since been busily engaged preparing plans, etc. The Gander River has for many years been the scene of great lumbering activities, and millions of feet of white pine have been shipped yearly to foreign markets, besides what has gone to the local trade.

The Chicoutimi Pulp Company, whose plant is located at Chicoutimi, Que., has just entered into what experts designate as the largest pulp contract ever made in the world. The company has agreed to furnish Lloyds, Limited, London, Eng., with 50,000 tons of pulp yearly for a term of ten years, and the contract should mean considerable activity in Chicoutimi during the next ten years at least, as the company gives employment to a large number of men. The pulp will be taken by steamer to Queensboro, on the Thames, near London, and thence lightered to Edward Lloyd & Co.'s mills. This concern has the largest news mill in the world, besides seventeen other paper machines.

The recent consolidation of the Riordan Paper Company and the G. H. Perley Lumber Company under the name of the Riordan Pulp & Paper Company, has brought about one of the strongest organizations in the pulp and paper business. Both the merged companies were going concerns and had built up splendid connections with the trade. In order to provide enlargements to their plant and for other purposes, the new company is making a bond issue of $1,500,000 six per cent, first mortgage. These are redeemable in 1942 at 105. The Riordan Pulp & Paper Company possesses 1,100 miles of pulp and timber limits in the province of Quebec, four up-to-date sawmills, a paper mill at Merriton and a sulphite mill at Hawkesbury, the latter being the largest sulphite mill in Canada

Over two hundred men are engaged in constructing at Beauharnois, P.Q., a mill for the Howard Smith Paper Mills, Ltd., recently formed. The company will manufacture the highest grades of bond and ledger papers, and hope to supply the market with a class of paper which is now largely imported. The directors of the company are C. Howard Smith, president; J. S. Newman, vice-president; J. J. Meagher, F. G. O'Grady, H. C. Courtney, with T. A. Hubley as secretary-treasurer. The building is to be five storeys high, and will be large enough to accommodate machinery twice the capacity of that to be installed, which will be capable of turning out five tons per day. The Canadian Light & Power Company will supply 500 horse power of electrical energy.

The mill of the Colhoun Lumber Company at Lanse Aux Cousins, near the town of Gaspe, was recently destroyed by fire, together with 6,000,000 ft. of lumber. The loss is estimated at $140,000 or $150,000 and although the exact amount of insurance is not known, it is hardly probable that it will cover the loss. The will, which was one of the largest and most modern on the Gaspe coast, was built about fifteen years ago, but was recently remodelled and improved. The rotary equipment had a capacity of 60,000 feet of long lumber a day. Besides the rotary, the mill was equipped with a lath machine with a daily capacity of 45,000, and eight shingle machines with a daily capacity of 160,000. His Honor Lieutenant Governor Wood is president of the company, other principal stockholders being John C. Calhoun, the manager, Harry F. Calhoun, secretary-treasurer, and T. B. Calhoun, the well known lumberman and millman of Calhoun's, N.B. It is believed that the company will rebuild, as it has valuable timber areas in this district.

By November 30, the four dams of the East Canada Power & Pulp Co., Murray Bay, P.Q., under construction on the lakes will be completed, giving the company three months' storage, and enabling the plant to turn out 145 tons of pulp per day during the months of May, June, July, August, September and October. The spring and fall rains will provide the rest of the water needed, thus ensuring, says Mr. William Whyte, the manager, an output of 25,000 tons per annum. Mr. Whyte states that the company will be able to pay the bond interest of the company out of the May, June and July operations. The company, he says, will develop 9,000 horse power. Its limits extend over 400 square miles, 80 per cent. of the cut being black spruce, and Mr. White claims that the dry wood pulp produced is the best in the country. A contract for a five-years' cutting of logs has just been signed, at a low rate, the quantity to be used being about 32,000 cords a year. Sir R. Forget, the president of the company, announces that the September interest on the bonds will be paid at once.

Western Canada

The mill of Campbell River Lumber Co. Ltd., Hazelmere, B.C., is reported to have been destroyed by fire.

The large mill of the United Lumber Company, at Nanoose, B.C., is now in operation. It has a capacity of 140,000 feet of lumber daily.

The Cowichan Lake Lumber Company is planning to erect a saw mill at the lake. The company's timber limits comprise about 11,000 acres near Cowichan Lake.

The Adams River Lumber Company, which has a large mill at Chase, B.C., has acquired an additional 25,000 acres of timber within ten miles of its mill. The land is estimated to contain 250,000,000 feet of timber.

Cushing Brothers, Ltd., Calgary, Alta., are figuring upon establishing a branch sash and door factory at Lethbridge. W. H. Cushing visited Lethbridge recently and conferred with officials of the Board of Trade, who are ready to make several attractive concessions.

Work was started in August on the Cowichan Lake extension of Island division of the Canadian Pacific Railway, running from Duncan Station, 18 miles, to that resort. The contract was awarded to the Island Lumber Company.

A Vancouver, B.C., report says: The Powell River Pulp and Paper Company has discovered a new source of income, and the find indicates the possibilities of increased revenue if careful consideration is given every feature of business. The company cut large numbers of hemlock logs for its mills, saw and pulp, but found the timber contained so much sap that the logs often sunk in the water while being towed to the mill. To allow them to dry out, the bark was peeled off in the woods, and as this had to be done anyway before the timber went through the pulp process, the extra cost was not great. Now they have found that $2 a cord can be obtained for the bark, which is used for tanning purposes. If tariff difficulties prevent export, the company may erect a plant to render the bark into tanning extract.

Scant 2″

Merchantable Spruce

2″ x 9″ & 2″ x 10″

10 to 13 ft. Long & 14 to 17 ft. Long. Cut early 1912.

5th Quality of same also.

Particulars furnished on request

J. H. REDFERN, LUMBER MERCHANT

920 Charlevoix Street, MONTREAL

Dry Mill Cull and Box Lumber Becoming Scarce

These grades are being rapidly picked up. We have still a nice stock of last season's cut.

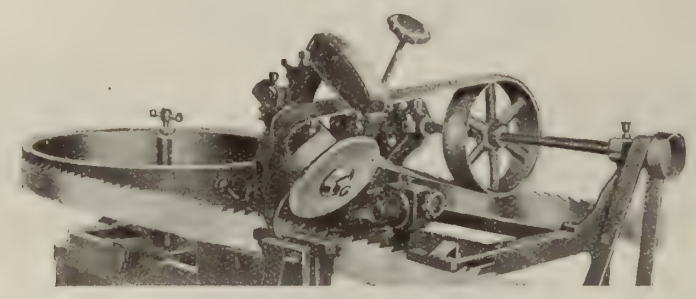
White Pine *for the* **Wholesale Trade**

We advise you to write, wire, or 'phone without delay and get the benefit of our low prices.

Thos. Mackarell & Co.

Ottawa
49 Metcalfe Street

Montreal
Canadian Express Bldg.



THE best way we know for a filer to learn about ***Aloxite Saw Gumming Wheels*** is to have him try one out—put it to the severest test—then compare its work with the results he is getting with other wheels.

In the ***Aloxite Wheel*** he will find a saw gummer that will cut faster, cleaner, cooler—no burning or case hardening of the saw teeth—it will hold its shape—show long life—require but little dressing.

Aloxite is hard, sharp, tough—the best of all abrasives for steel work—every wheel is made right—right grit and grade—right bevel.

THE TRIAL WHEEL WILL TELL

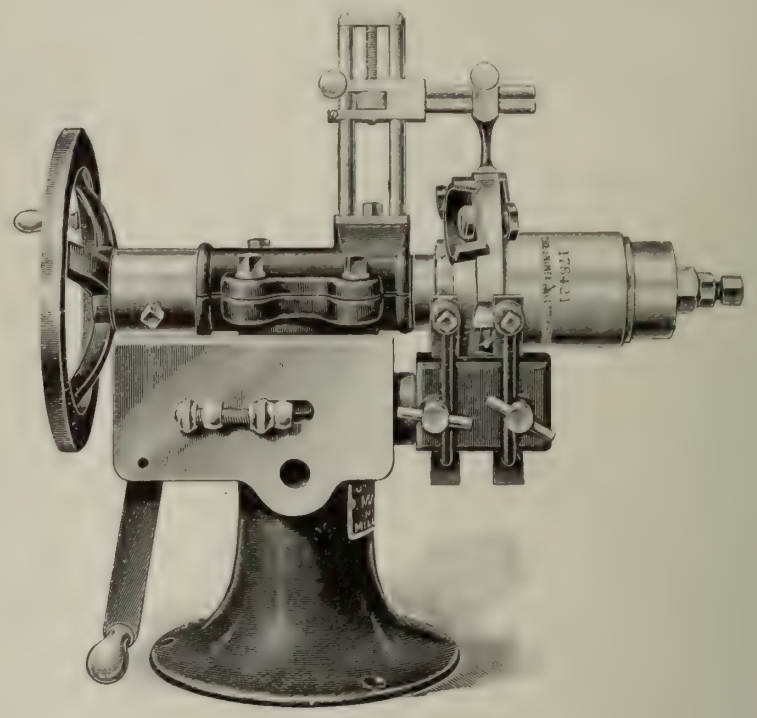
The Carborundum Company

Niagara Falls, N.Y.

New York, Boston, Chicago, Cincinnati, Philadelphia, Cleveland, Milwaukee, Pittsburg, London, Eng.

The Shimer Cutter Head Jointing Machine

In connection with the new Shimer Limited Cutter Heads which have been advertised in the Canada Lumberman for some time, and which have made good in so many mills, the makers have also brought out a Cutter Head Jointing Machine, which is not only suitable for the new heads, but which has been adapted to their other makes as well. This machine with the use of files, joints the edge of the bits to bring them within a common cutting radius, so that each knife edge does an equal share of the cutting. Its careful use will improve the quality of work done and enable the operator to increase machine feeds if desired. The machine is also made with tracking attachment for setting the bits before jointing and it can be used as a filing stand for holding the heads while being sharpened with a file. The stub is ground to exact size of matcher spindles and all parts are carefully tooled, making the machine a very useful adjunct to the planing mill.



A New Shimer Product

Further information and literature describing this and other tools will be sent upon application to Samuel J. Shimer & Sons, Milton, Pa., or Galt, Ontario, Can.

A New Crowell Tool Catalogue

D. J. Crowell, of Buffalo, N.Y., manufacturer of the Crowell Patent Saw-Fitting tools, has issued a very attractive catalogue of his saw swages and swage shapers. The catalogue gives full particulars of the various swages and shapers manufactured by Mr. Crowell, and explicit instructions are included as to the proper method of using these tools. Useful information is also given for young filers, as to the correct and incorrect way to operate and adjust swages. Mr. Crowell has favored the Canada Lumberman with a souvenir watch charm and will be pleased to send a similar one to any saw filer who will mail his address to him at 6, The Terrace, Buffalo, N.Y. The Crowell tools are so well known that we need say nothing for them to those who have used them. Those who have still to try them will unquestionably serve their own interests by writing Mr. Crowell and at the same time mentioning the Canada Lumberman.

Federal Engineering & Supplies Taking New Quarters

Federal Engineering & Supplies Limited, 284 Yonge street, are making arrangements to move about November 1st to the new Lowes Building at 90 Sherbourne street, Toronto. They find their present premises are not commodious enough, and they have taken two floors at the latter address. The Federal Engineering & Supplies, Limited, are carrying a large stock of Scandinavia and Lanco Balata Belting; also incandescent lamps, chemical fire extinguishers and electrical specialties.

Grand Rapids Dry Kilns in Canada

The Grand Rapids Veneer Works have recently closed contracts to supply dry kilns for the Canada Furniture Manufacturers, Limited, Berlin, Ont., and Woodstock, Ont., and also for the Gall Lumber Company, Limited, Toronto.

Bain Sleighs for Logging Operations

Famous for their great Capacity and Light Draft

LOGGING is a severe test of a sleigh.

The best is none too good, even though you may pay considerably more than for one which possibly may appear to be just as good.

It is only by actual test—the test of time and hard usage—that the difference is apparent, and the increased first cost is forgotten. **The quality is remembered long after the price is forgotten.**

The cross chain couplings allow great flexibility and the hind bob follows in the tracks of the front when turning. Some prefer the short reach for well broken roads as a sleigh so fitted can be backed same as a wagon.

Swing bunks are an advantage in the bush, as they can be swung parallel with the runners when driving without a load.

Any of these sleighs except the heavy sloop can be fitted with 38, 40 or 42 inch bolsters for general work.

Our new catalogue No. 30 tells all about it and is yours for the asking.

The Bain One-Beam North Shore Sleigh

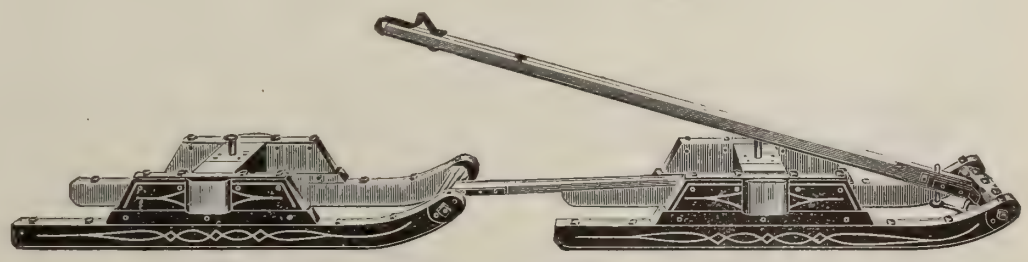
Steel Shoes; Swing Bunks or Bolsters; Cross Chain Coupling; 2 ft. 10 in. or 3 ft. Track. Clearance under Beam 9½ inches

The Bain North Shore Sloop Sleigh

Steel Shoes; Cross Chain Coupling; 2 ft. 10 in. or 3 ft. Track. Clearance under Beam 7 inches

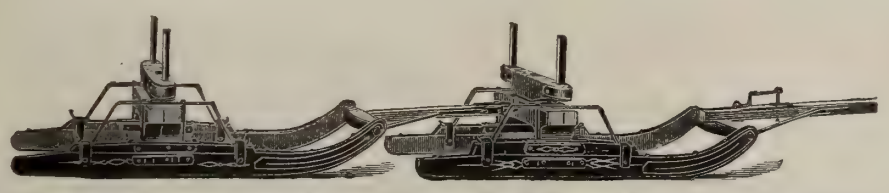
The Bain Heavy Sloop Sleigh

Steel Shoes; Cross Chain Coupling; Furnished without Bolsters but with king bolts front and rear; 3 ft. 4 in., 4 ft. 4 in. or 4 ft. 8 in. Track. Clearance under Beam 7 inches.



The Bain Heavy Sloop Sleigh

With Short Reach Coupling



The Bain Double Beam Manitoba Sleigh

Steel Shoes, Short Reach Coupling, 3 ft. track. Clearance under Beam 9½ inches

Massey-Harris Co.

Limited

Head Offices Toronto

Branches at Montreal, Moncton, Winnipeg, Regina, Saskatoon, Calgary, Edmonton

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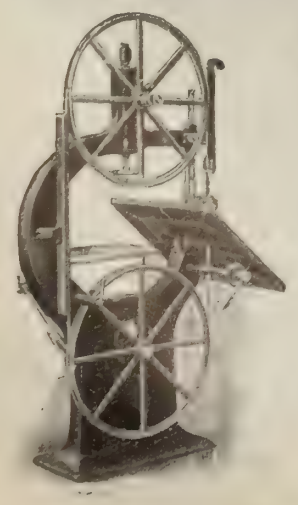


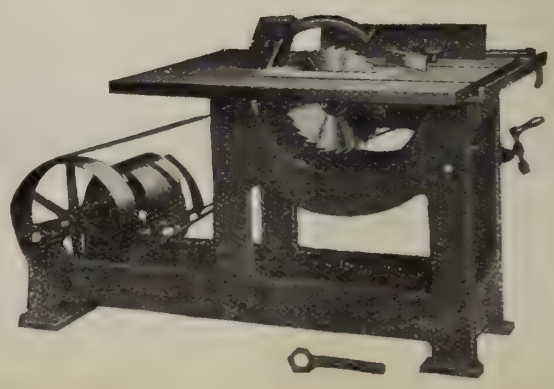
Silver's New Woodworking Machines

Saw Tables, Jointers, Swing Saws, Band Saws—tools of good, honest construction, newest improvements and conveniences; patterns fresh from the designers.

JOINTERS—8, 12, 16, 20, and 24-inch.
BAND SAWS—20, (foot or belt power) **26, 32, and 36-inch.**
SWING SAWS—6½, 7, 7½ and 8-foot lengths
SAW TABLES—Two Styles

Silver's machines are high pressure machines. They will do your work and do it well, save you money and labor, suit you in sizes and in prices too.

Post up on these tools. Ask for our 1911 catalogue and special prices at once.



THE SILVER MFG. CO.

375 BROADWAY **SALEM, OHIO.**

The value of

"AMPHIBIA"

(WATERPROOF)

Leather Belting

lies in the service it renders for each dollar you put into it. The "first cost" may be a little higher than any other belting but this difference is per foot length only. This per-foot-length price is no criterion of belt value, only service counts and

"AMPHIBIA"

costs less per day of service

We can prove this by the records of "AMPHIBIA." You can prove it by specifying "AMPHIBIA" next time and keeping tab on it.

"AMPHIBIA"

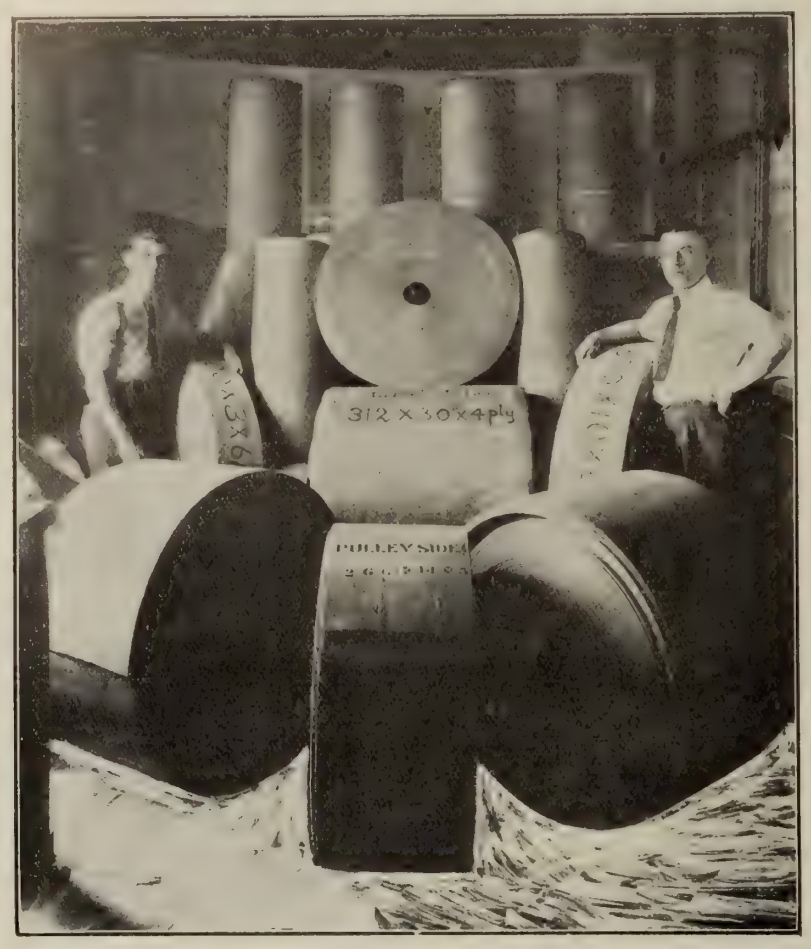
Sadler & Haworth

Tanners and Manufacturers

For Over 35 Years Makers of the Best Leather Belts

Montreal Toronto St. John, N.B. Winnipeg Vancouver

To insure satisfaction—State where belt is to run



An Important Test of Vi-Balata Belting

A recent test made by the well-known Testing Engineers, Messrs. Kirkaldy & Sons, London, England, gave the following breaking strain:

6" x 4 ply broke at 13,000 lbs.
or
9,000 lbs. per Square Inch.

Vi-Balata Belting is absolutely water-proof and is not in the least affected by extremes of temperature. Best possible results guaranteed.

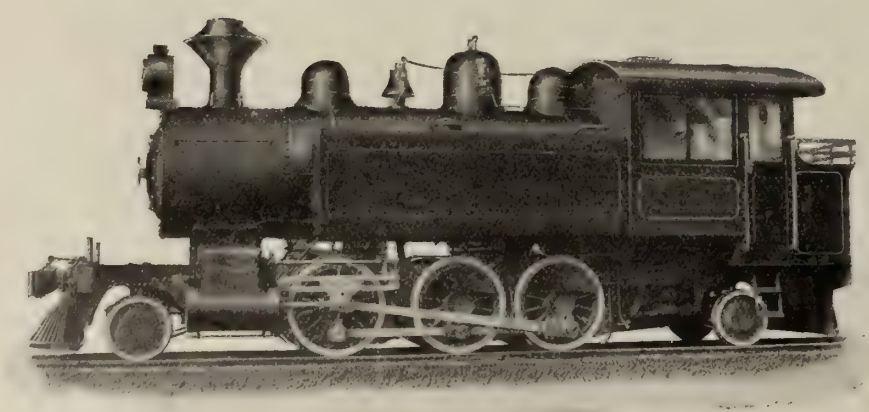
Sole Canadian Agents:

The General Supply Co. of Canada, Limited

356-58-60 Sparks Street, OTTAWA, ONTARIO
Market and Louise Sts., WINNIPEG, MAN. - - 115-125 Adelaide St. West, TORONTO

SELECTION OF LOCOMOTIVES

WHAT SHOULD BE KNOWN BEFORE YOU PURCHASE LOCOMOTIVES:—

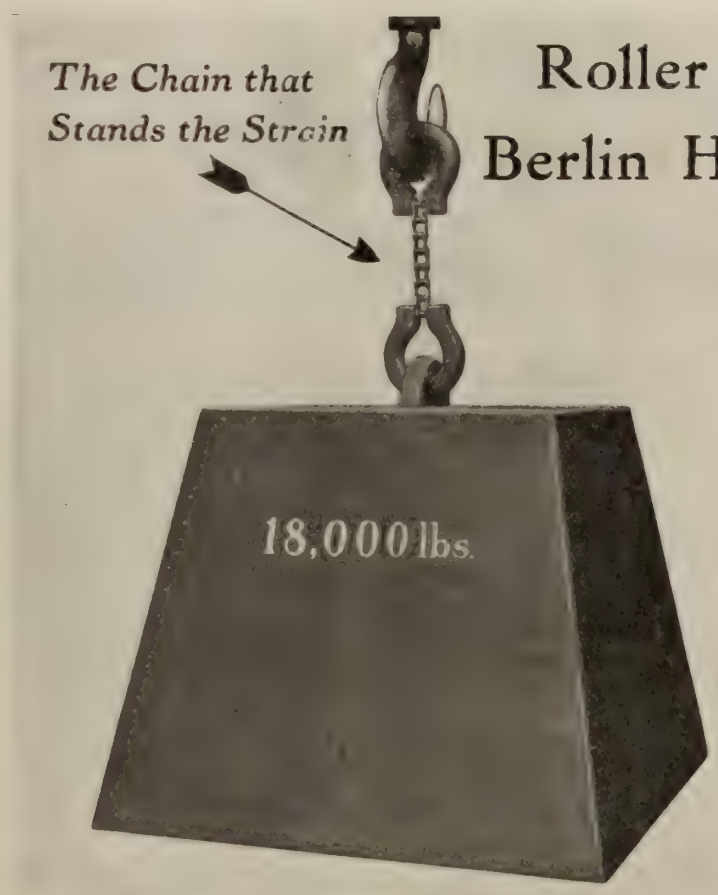


Nature of the service.
Capacity of the cars and weight of train.
Character of track—is it new or old.
Length of haul.
Is time an important factor.
Do you want a quick locomotive or a big puller.
Distance from base of supplies and quarters for the men.
Water and coal carrying capacity.
All these items and more should be considered.
A careful study of conditions may mean larger profits.
Our experience may be valuable in considering them.
A dollar saved is more than a dollar earned.

Write or wire us, or better still, come to see us.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA



Roller Bearing Chains Drive Berlin High Efficiency Matchers

Don't haul your profits to the scrap pile

THE roller bearing chains used to drive Berlin High Efficiency Matchers are by actual test capable of standing a strain of 18,000 lbs.

Broken gears being the biggest item of upkeep expense on all gear driven machines, there grew a demand for a more durable drive. Our engineers met the demand with the roller bearing chain. All but 5 gears have been eliminated. Think of the enormous saving in a year.

You know what broken gears mean when you have rush orders. It's worth many dollars to have a machine that you can drive to its capacity without fear of a breakdown.

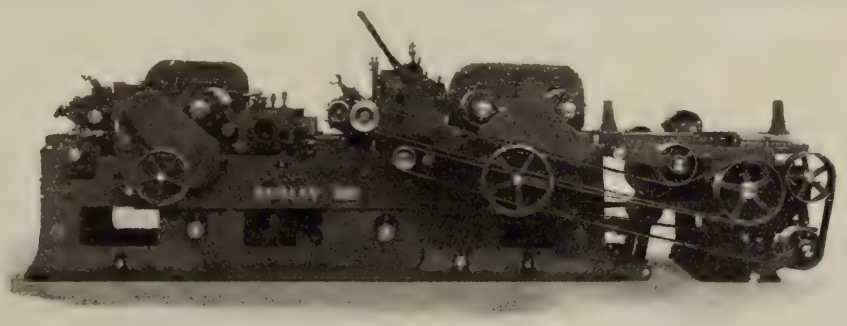
The new Berlin Matchers stand up under the strain of heavy runs for years without a cent of repairs.

On gear-driven machines, one and never more than two teeth of a gear are doing all the work at one time; while with the chain, the strain is distributed over half the circumference of the sprocket. Compare these two methods and you readily see the many advantages of the chain and sprocket.

Chains mesh better over the teeth of the sprocket, which means that vibration caused by the driving mechanism is reduced to a minimum. Lack of vibration insures a smooth finish on the stock—consequently a saving in grades.

Strength of the Chains

The chain used on Berlin Matchers is capable of lifting 18,000 lbs. In actual work on the matchers it never has a heavier pull than 700 lbs. This shows the reserve strength we have provided—more than 25 times the strain ever put upon it when running at highest speed.



Berlin Construction is Standard

Berlin Engineers have led the way in matcher construction. In fact, Berlins have proven so satisfactory, do their work so much cheaper, and with so much less power, that evidences of Berlin construction can be seen in other machines. Berlin Matchers are insurance against mismanufactured stock.

Things that go to make Berlin Matchers the most efficient, are round cutter heads with 6 Pyts steel thin knives—side and profile heads carrying milled high speed steel bits—devices for grinding and jointing all bits without removal from the head—automatic takeup boxes on cutter and side head spindles—independent gravity tighteners on the slack side of all belts and the many quick, easy and accessible adjustments provided.

Economical upkeep, durability and ease of operation are responsible for the splendid success of Berlin High Efficiency Matchers.

Go and see one running. Ask the man who owns one. We gladly invite the opinion of every user for your consideration.

Let us tell you where you can see one in operation. Write our Matcher Department today for full information.

A 10-page circular of the several models of this machine sent upon request

THE BERLIN MACHINE WORKS, Ltd., HAMILTON, ONT.

Largest Manufacturers of Woodworking Machinery in the World

United States Plant: Beloit, Wis.

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$60 00	65 00
1¼ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better..	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better ..	56 00	60 00
1½-in. No. 1, 2 and 3 Cuts ..	48 00	50 00
2-in. No. 1, 2 and 3 Cuts ...	48 00	50 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	24 00	26 00
1 x 6 common and dressing ..	27 00	29 00
1 x 8 common and dressing ..	27 00	29 00
1 x 10 common and dressing..	30 00	32 00
1 x 12 common and dressing ..	39 00	41 00
1 x 10 and 12 mill cull stocks..	21 00	22 00
1-in. mill cull sidings		18 50
2 x 10 common	27 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	22 50	23 50
1 x 10 inch box and common.	24 00	25 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	24 00	26 00
1-in. mill run shorts		19 00
1-in. deal cull sidings		15 00
1-in. flooring		28 00
1-in. mill run Norway		22 00
2-in. mill run Norway		25 00
Norway, c and cf 1-in.	34 00	35 00
Norway, c and cf 1½-in.	35 00	38 00
Norway, c and cf 2-in.	33 00	35 00
Spruce mill run	21 00	22 00
Spruce mill culls	15 00	16 00
Clear in. B.C. cedar, kiln dried.	55 50	65 50
Douglas Fir		
Dimension Timber up to 32 feet:		
8, 10x10, 10x12, 12x14, 12x12, 12x14, 14x14, 14x16		34 00
8x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 14x18, 16x18 18x18, and 20x20		34 50
6x14, 8x14, 12x18, 18x20		35 00
6x16, 8x16, 10x18, 12x20, 14x20, and 16x20		35 00
10 x 20		36 00
6 x 18, 8 x 18		36 50
6 x 20, 8 x 20		37 50
Lengths over 32 ft. take the following advances: 33 to 35 ft., 50c.; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5		
Fir flooring, edge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		.45 10
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 10
1½-in. No. 1 4-ft. pine lath..		4 50
1½-in. No. 2 4-ft. lath		4 00
1½-in. 32-in. pine		1 60
1½-in. No. 1 4-ft. hemlock lath		3 75
1½-in. mill run hemlock lath.		3 50
X pine or cedar shingles		1 05
XX pine or cedar shingles ...		2 25
XXX pine or cedar shingles ..		3 20
XX B. C. cedar shingles		2 40
XXX 6 butts to 2-in.		3 40
XXXX 6 to 23-16-in.		3 52
XXXXX		3 75
Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.....		16 50
1 x 6 6-in. x 9 to 16 ft.		19 50
1 x 8-in. x 9 to 16 ft.		20 50
1 x 10 and 12 in. x 9 to 16 ft.		21 00
1x7, 9 and 11 in. x 9 to 16 ft.		19 00
1-in. No. 2, 6-ft. to 16-ft.		16 00
2x4 to 12-in., 12 and 14 ft. ...		21 00
2x4 to 12-in., 18 ft.		22 00
2x4 to 12-in., 20 ft.		23 50
2 x 4 to 12-in., 22 ft.		25 50
2 x 4 to 12-in., 24 ft.		28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		17 00

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	55 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4.....	48 00
Ash, brown, common and better ...	37 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1sts and 2nds, 4/4	35 00
Birch, No. 1, com. and bet., 4/4....	30 00
Birch, 1sts and 2nds, 6/4 and 8/4 ..	38 00
Birch, 1sts and 2nds, 10/4 and 12/4..	42 00
Birch, 1sts and 2nds, 16/4	44 00
Basswood, 1sts and 2nds, 4/4	38 00
Basswood, No. 1 com. and bet., 4/4.	33 00
Basswood, No. 2 and 3, common...	17 00
Basswood, 6/4 and 8/4, 1sts and 2nds	42 00
Basswood, 6/4 and 8/4, com. & bet.	37 00
Basswood, No. 2 common and better.	29 00
Soft elm, 1sts and 2nds, 4/4	36 00
Soft elm, No. 1 com. and bet., 4/4 ..	29 00
Soft elm, No. 2 and 3, common	16 00
Soft elm, 6/4 and 8/4 1 and 2	38 00
Soft elm, 1sts and 2nds, 6/4 x 8/4 ..	50 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	31 00
Soft maple, com. and better, 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	34 00
Hard maple, 1sts and 2nds, 4/4	34 00
Hard maple, common and better, 4/4.	27 00
Hard maple, 12/4 & 16/4, 1sts & 2nds.	43 00
Red oak, plain, 1sts and 2nds, 6/4 & 8/4	60 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	65 00
White oak, plain, 1sts and 2nds, 4/4.	55 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	60 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	70 00
White oak, ¼ cut, 1sts and 2nds, 4/4..	86 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	90 00
White oak, ¼ cut No. 1 common...	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up $53 00		55 00
1¼-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up ..	40 00	45 00
Pine good strips:		
1-in.	45 00	47 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	50 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	38 00	40 00
1-in. x 4-in. to 6-in.	30 00	35 00
1¼-in. and 1½-in.	48 00	53 00
2-in.	52 00	56 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings ..	33 00	35 00
Pine, No. 1 dressing strips ..	26 00	31 00
Pine, No. 1 dressing shorts ..	22 00	26 00
Pine, 8 s.c. and better, 12 ft. to 16 ft.	25 00	26 00
Pine, 7 up s. c. siding 1-in...	22 00	25 00
Pine s. c. sidings 1½ & 2-in...	29 00	32 00
Pine, s. c. strips 1-in.	18 00	20 00
1¼, 1½ and 2-in.	22 00	24 00
Pine, s.c. shorts, 1 x 4 to 6 in.	16 00	18 00
Pine, s.c. and bet. 1 x 5	22 00	25 00
Pine, s.c. and bet. 1 x 6	23 50	25 00
Pine, box boards:		
1"x 4" and up 6'-11'	13 00	14 00
1"x 3" to 6", 12'-16'	16 00	18 00
1" x7" and up 12'-16'	18 00	19 00
Pine shorts 6'-11' 1"x 10' ...	20 00	21 00
1x9 and 9 No. 1 barn	29 00	30 00
O. culls r & w p	11 00	12 00
Red Pine, log run:		
mill culls out, 1-in.	14 00	16 00
mill culls out, 1¼-in.	16 00	18 00
mill culls out, 1½-in.	17 00	19 00
Mill run Spruce:		
1"x 4" and up, 6'-11'	14 00	15 00
1"x 4" and up, 12'-16'	16 00	18 00
1"x 9"-10" and up, 12'-16'.	18 00	19 00
1¼"x 7" 8-9" and up, 12'-16'	18 00	20 00
1¼"x 10" and up, 12'-16'.	19 00	21 00
1½" & 2"x12" & up, 12'-16'	24 00	25 00
Spruce 1-in. clear (fine dressing and B)	24 00	27 00
Hemlock 1-in. cull	10 00	12 00
Hemlock 1-in. log run	13 00	14 50
Hemlock 2x4, 6, 8, 10, 12/16'	14 00	16 50
Tamarac	13 00	15 00
Basswood log run, dead culls out	22 00	25 00
Basswood log run mill culls out	26 00	30 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
Pine, s.c. and better, 1x7	21 50	23 00
Pine, s.c. and better, 1x8	23 00	25 00
Pine, s.c. and better, 1x9 ...	23 00	25 00
Pine, s.c. and better, 1x10 ...	25 50	27 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	15 00	18 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	11 00	13 00
Lath per M:		
No. 1 white pine 1⅜-in. x 4-ft.	3 75	4 00
No. 2 White Pine	3 25	3 50
Mill run white pine	3 00	3 25
Spruce, mill run 1½-in.	2 75	3 00
Red pine mill run	3 00	3 25
Tamarac mill run	1 25	2 00
Basswood, mill run	2 50	3 00
Hemlock, mill run	2 75	3 00
32-in. lath	1 50	1 75
Pine Shingles		
xxxx, 18-in.	3 00	4 00
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	2 75	3 25
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

	cts.	
First class Ottawa waney, 18-in. average, according to lineal	85	90

Oak—Michigan and Ohio

By the dram, according to average and quality	62	70

Elm

By the dram, according to average and quality, 40 to 45 feet	80	85
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash

13 inches and up, according to average and quality	25	30
Average 16 inch	30	40

Birch

14 inch	18	20
15 inch	22	24
16 inch	26	28
18 inch	32	30

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up.	$18 00	19 00
Oddments	15 00	16 00
Boards, 1 and 2 in.	15 00	16 00

Birch Planks

1 to 4 in.	16 00	17 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in. .....$.54 00	
1 in., 8 in. and up wide	67 00
1¼ and 1½ in. and up wide	69 00
2 in. and up wide	72 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	67 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	47 00
1¼ in., 8-in. and up wide	57 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide....	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	48 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide..	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	22 00
1-in. x 5-in.	24 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	30 00
1-in. x 12-in.	35 00
1-in. x 13-in. and up	35 00
1¼, 1½ and 2-in.	32 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	20 00	22 00
No. 2, 1¼, 1½, 2-in.	18 00	22 00

Mill Culls

Mill run culls, 1-in.		17 00
1, 1¼, 1½ and 2-in.		18 00
No. 2	16 00	17 00

Lath

No. 1, 32-in. pine	1 50
No. 2, 48-in. pine	3 75
No. 3, 48-in. pine	3 00
No. 1, 48-in. pine	4 25
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	14 00	17 00	20 50	18 50
2 x 6	16 50	17 00	20 50	18 50
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

..PINE, SPRUCE, TAMARAC & LARCH..

Mountain Stock Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap Finished

4 inch $20 00	
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1 ....$33 00	
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft. ...		29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft. $21 50	
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00 27 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring.	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch $31 00	
No. 2 common pine, 10 inch	25 00
No. 3 common pine mixed widths...	20 00
No. 4 common pine, mixed widths ..	14 50
No. 5 common pine, mixed widths ...	10 00

SHINGLES

XXX B. C. Cedar	$2 90
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4 ....$94 00	
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00

(Continued on page 72)

The First American Saw Steel

The great and powerful place which American steel has assumed in the world is all the more remarkable when it is considered how hard was the early struggle to give it standing. Yet in the face of every adverse condition the industry has developed and grown and to-day it cannot be successfully contradicted that America is not only the largest and most critical consumer of steel in the world, but also the greatest producer as well, and this despite the fact that some years ago the entire country sent abroad for all its steel.

This is true, not only of rails, plates, structural steel, wire and the commoner grades of steel, but also of the higher grades of steel, such as Tool steel and Alloy steels.

At the present time Henry Disston & Sons use a greater quantity of tool steel annually, for saw-making purposes, than any other single American manufacturer, and all of it is produced in their own plant. The history of this plant is unique because it is the first successful crucible steel melting plant in America to make saw steel.

The fact that saw manufacturers were forced to secure all their steel plates from abroad, and these seldom free from flaws, led Henry Disston in 1855 to establish his plant for producing special saw steel. His extensive and careful study of the problem, together with much costly experimenting, resulted in the production, not only of the first saw steel made in America, but the first really perfect saw steel made anywhere.

So great was the prejudice, however, against American steel that Henry Disston was compelled to conceal for a time the fact that he made his own steel, but it was not long before its good quality became known.

Demand on the part of the lumber manufacturers for increased output caused untold difficulties for the saw manufacturer. Forcing results in the saw mill necessitated the making of a steel which would withstand the much greater strains and at the same time possess a longer life. Since its inception, Disston Saw Steel has kept pace with the increasing requirements of the lumber manufacturer so that it possesses, to-day, all the qualities necessary to make it the best steel for saws produced anywhere in the world.

Disston not only made the ***first*** American saw steel, but to Disston steel is due the present high standing of American Saws throughout the world.

HENRY DISSTON & SONS

INCORPORATED

REPRINTED FROM
THE DISSTON CRUCIBLE
OF MARCH, 1912

Keystone Saw, Tool, Steel and File Works
PHILADELPHIA, PA.

BRANCH HOUSES: { **Chicago, Boston, Cincinnati, New Orleans, Memphis, San Franciso, Seattle, Portland Spokane, Toronto, Vancouver**

Shimer Cutter Heads and Cutters!

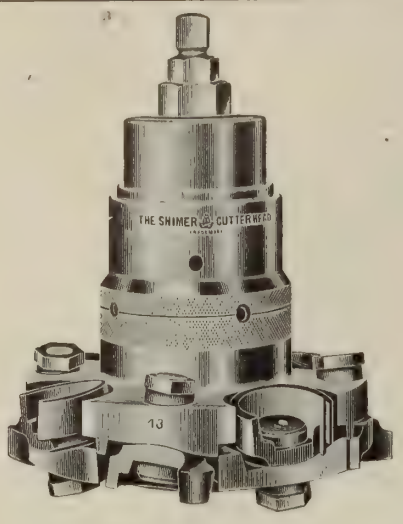


Fig 627

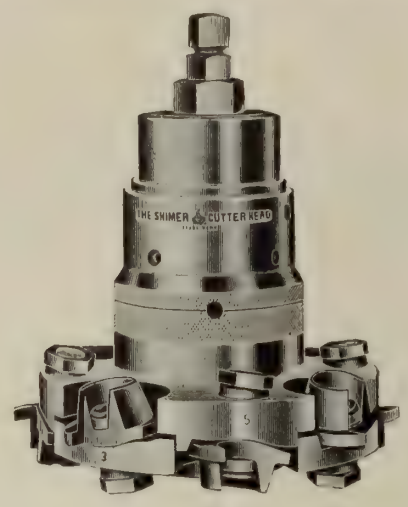


Fig 628

The "Shimer Limited" with Expansion, price $72.46 per set, complete.

The Tools You Need.

You will eventually realize that the Shimer Limited Cutter Heads are the tools you need to increase your output without sacrificing quality or increasing expense. You will find that the mills that are using them are perfectly satisfied and will give testimony to this fact.

We don't see how it could be otherwise. We have studied planing mill conditions for forty years and have kept pace with the changing conditions by designing tools that were safe, that were efficient, that were profitable to use because time and labor saving, that were lasting and that sold at low prices.

The Shimer Limited Cutter Heads sustain and enhance the reputation built up by our other tools. In addition to the special features which have made the Shimer Cutter Head famous, these new Fast Feed Heads have a self-centering device which clings to the spindle when drawn up, securing it firmly thereto. The bit seats also carry a larger surface and the bit chambers are of greater depth to compensate for the new acute angle given to the Bits for greater relief to all parts coming into contact with the lumber. The Spindle gripping device is not only positive and effective in its purpose of holding fast to the spindle, but it also centralizes the Head on the spindle for a more uniform action of the Cutters.

The results of all cutters cutting is a smoother finish, notwithstanding the faster feed, and an output far in excess of former methods.

If you have a machine that will swing Heads of 6¾ inches diameter and feed over 150 lineal feet per minute, we would like to send you a set on 30 days' trial.

Take the measurements now and let us have your order at once.

Popular Cutter Heads

The most popular of The Shimer Cutter Heads are Figs. 202 and 203. The Bits are held within conical duplex bit seats, self-centering, arranged with the very complete Expansion feature for the fine adjustment of tongue and groove thicknesses.

Price with 4 bits to each head, the set $40.95
Price with 6 bits to each head, the set 49.27
Price with 8 bits to each head, the set 57.60

Complete with Flooring Bits. The Heads will also receive Bits for thin Ceiling—⅜ at $1.30 each and Bits for 2-in. thick plank at $1.63 each.

Jointer Heads

For jointing plain edges we make several styles of Jointer Heads provided with shearing effect to produce the easiest and at the same time the smoothest work. Made of Steel Forgings they supply the strongest and best. Our very reasonable prices put the tools within the reach of all.

Price, with 4 bits to each head, the set, 1¼-in. $31.20
Price, with 4 bits to each head, the set, 2-in. 33.28

Ship Lap Heads

to give you the best service must be of a kind that is always ready and in interchange with matcher and other Heads you may have fitted to your machine, thus avoiding a change of machine guides. This is one reason why the Shimer Ship Lap Heads are so generally used. The other reason is that they do work so satisfactorily that all who know their convenience take them in preference to others.

Price, with 4 bits to each head, the set, 1½-in. thick, $34.84
Price, with 4 bits to each head, the set, 2½-in. thick 35.88

Double Ceiling Heads

These heads have a special design to suit the purpose of double tonguing and grooving, with overlapping of the bit cutting edges to produce perfect clearance and to protect the leading points from unnecessary friction and wear.

They double the capacity of any matcher or moulder and provide a means of turning out single surfaced ceiling or flooring upon the most economical basis.

Price. Double Ceiling Heads complete with Bits, net, $40.94

Door, Sash and Coping Tools

That save all the hand fitting. No changing of patterns, therefore, no trouble in framing the door and sash parts when they are matched up with the Shimer Cutter Head. We relieve you of that detail of the business when we place the mould in counterpart within the contour of the Bits. The Bits are filed only to sharpen and being set by means of a gauge give accurate and uniform results. Prices very reasonable.

Reversible and One Way Cutters

The Shimer Reversible Cutters for Single Spindle Shapers, Variety Moulders or Friezers, are carefully moulded opposite to the shape of the mould to be produced, in such a way as to have only the cutting edge touch the lumber. They are complete—inexpensive—time saving. We also make One-Way Cutters for the Double Spindle Shaper.

Thin Steel Knives

Advanced ideas referring to the planing and surfacing of lumber have developed into the use of the thin blades, made from high speed steel, which when properly tempered and treated, serve for one or two days of work on hard maple, oak or hickory.

These blades are known as our Bedee Knives and are recommended by users as the best that can be procured. For the benefit of those desiring to use this style of a knife we have facilities to furnish them in any length or thickness.

Write us about your requirements.

Samuel J. Shimer & Sons

Milton, Pa., U.S.A. **Galt, Ontario, Can.**

ENGINES and BOILERS

OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

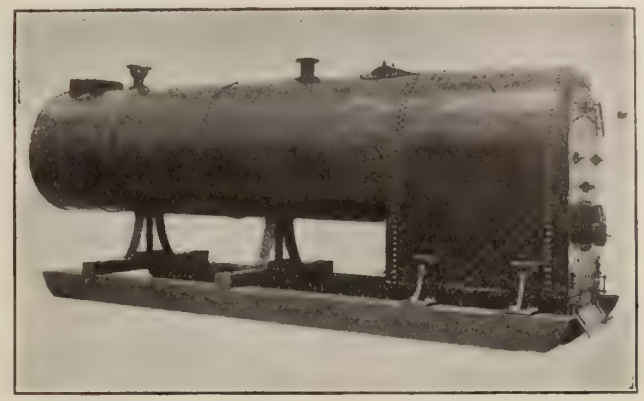
We cater specially to the lumbering industries

Write for Prices and Information

E. LEONARD & SONS

LONDON, CANADA

Agencies and Warehouses:—ST. JOHN, N.B. MONTREAL, QUE. TORONTO, ONT. WINNIPEG, MAN. CALGARY, ALTA. VANCOUVER, B.C.



Locomotive Boiler on Skids

The Great Pulling Power of a Little "Want Ad"

A "want" advertisment is a small thing both in size and in cost, but through a a small "want ad" great things have often arisen.
A subscriber to the Canada Lumberman and Woodworker recently inserted a small ad in the "WANTED and FOR SALE" Department of this paper and received

47 REPLIES

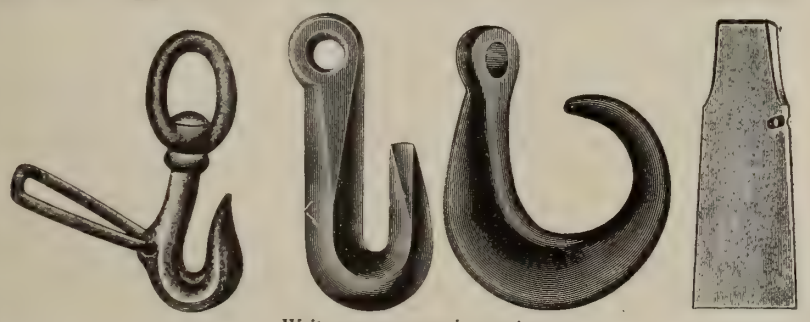
Have you some odd lots of lumber that you would like to move quickly?
Have you some second hand mill machinery you wish to sell or exchange?
Do you want to buy some special lots of lumber or machinery?
If so **YOU NEED** the assistance of the "Wanted and For Sale" Department.
Let us assist you in filling your next want.

Canada Lumberman and Woodworker

Toronto

LOGGING TOOLS

Soo Line Logging Tools—The Favorite of the Practical Lumberman



Write us your requirements

Canadian Logging Tool Company

SAULT STE. MARIE, ONTARIO

German Sauer-Kraut

Pickles in Brine

Bulk Pickles in Pails
Vinegar Catsup

Carloads a Specialty **Camps Supplied**

We are the largest Sauer-Kraut manufacturers in Canada

Taylor & Pringle Co. Ltd.

OWEN SOUND, ONT.

CURRENT LUMBER PRICES — Continued

No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00
No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	46 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	30 00
No. 2 Barn 1 x 10	32 00
No. 3 Barn 1 x 6 and 8	23 00
No. 3 Barn 1 x 10	25 00
Box 1 x 6 and up	22 00
Box 1 x 10	23 00
Box 1 x 12	25 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

White Ash

1st and 2nd, 1 inch	40 00	42 00
1¼ to 2 inch	44 00	46 00
2½ to 4 inch	48 00	58 00
Strips	22 00	24 00
Common and culls	14 00	22 00

Black and Brown

1st and 2nd, 6 inch up	40 00	42 00
Common good culls	14 00	20 00
1st and 2nd 6 inch and up, red.	40 00	42 00
1st and 2nd, white, 6 in. & up.	30 00	32 00
Common and good culls	16 00	18 00

Elm

1st and 2nd, rock, 6 in. and up	34 00	38 00
Common and culls	16 00	20 00
1st and 2nd, soft, 6 in. and up	28 00	32 00
Common and culls	13 00	18 00

Maple

1st and 2nd hard	26 00	30 00
Common and culls	14 00	22 00
1st and 2nd, soft	26 00	28 00
Common and culls	14 00	22 00

BOSTON, MASS.

White pine uppers, 1 to 2 in.		100 00
Selects, 1 to 2 inch		90 00
Fine common, 1 in.		72 00
Fine common, 1¼ to 2 in.	74 00	75 00
No. 1 Cuts 1 in.		45 00
No. 1 Cuts 1¼ to 2 in.	58 00	60 00
No. 2 Cuts, 1 in.	35 00	37 00
No. 2 Cuts, 1¼ to 2 in.	45 00	48 00
Barn Boards, No. 1, 1 x 12	51 00	52 00
No. 1, 1 x 10		39 00
No. 1, 1 x 8		38 00
No. 2, 1 x 12		43 00
No. 2, 1 x 10	35 00	36 00
No. 2, 1 x 8	34 00	35 00
No. 3, 1 x 12	33 00	34 00
No. 3, 1 x 10	28 00	30 00
No. 3, 1 x 8	28 00	29 00
Canadian spruce boards	23 00	24 00
Spruce, 10 & 12 in. dimension.	26 00	27 00
Spruce, 9 in. and under dimen.		25 00
10 and 12 in. random lengths, 10 ft. and up	24 00	25 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	22 50
All other random lengths, 7" and under, 10 ft. and up	21 00	22 00
5-in. and up merchantable boards, 8 ft. and up, p 1s		21 50
Vermont spruce boards, matched 1 x 2 and 1 x 3 furring, p 1s clipped and bundled		23 00 21 00

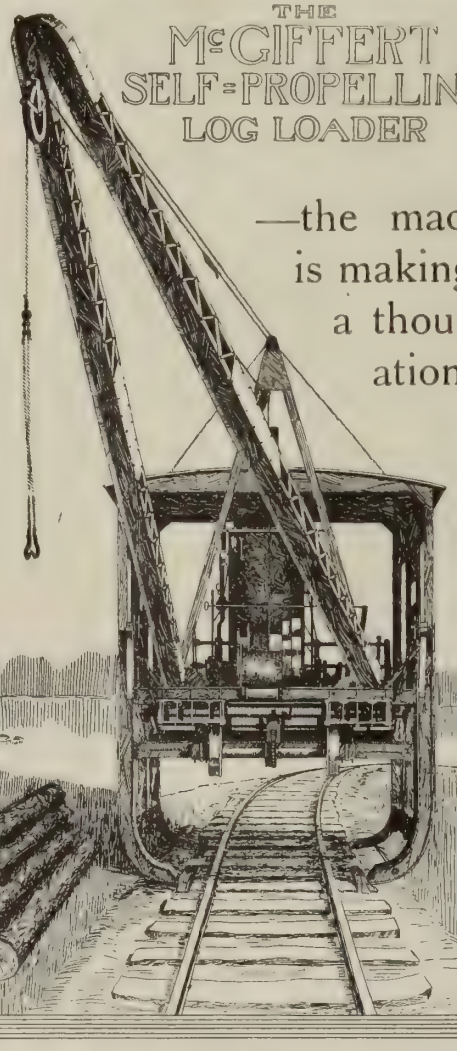
1⅛-in. spruce laths	4 50
1½-in. spruce laths	3 85

New Brunswick Cedar Shingles

Extras	$3 60	$4 00
Clears	3 25	3 60
Second clears		2 75
Clear whites		2 30
Extra 1 s (Clear whites out)		1 65
Extra 1s (Clear whites in)	1 50	1 60
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 50	4 00
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 35
Red Cedar Perfection, 5 butts to 2 ¾		4 90
Washington 16-in. 5 butts to 2-in. extra red cedar		4 10

The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30 Maple, $3.25 per M. ft.; 1/24 maple, $3.50 per M. ft.; 1/20 maple, $3.75 per M. ft.; above cut to dimension. 3/16 3-ply maple, 1 st. good, 3¼c. per ft.; ¼ 3-ply maple, 1 st. good, 3½c. per foot, all f.o.b. Jamestown, N.Y.

THE McGIFFERT SELF-PROPELLING LOG LOADER



—the machine that is making good on a thousand operations.

SEND FOR CATALOG No. 13

CLYDE IRON WORKS DULUTH, MINN.

International

Preparations for Horses are all sold on a Spot Cash Guarantee

Let us figure on furnishing you the following supplies for the coming season.

International Stock Food
We guarantee that your horses will do more work and keep in better order on less feed if they get International regularly.

International Silver Pine Healing Oil
Especially recommended for Sores, Bruises, Kicks, Inflammation and all flesh wounds.

International Worm Powder
Will quickly expel all kinds of worms.

International Distemper Cure
For Coughs, Colds, and Distemper.

International Colic Cure
Guaranteed to cure Colic in ten minutes.

International Compound Absorbent
Greatest Curb cure on Earth.

International Gall Cure
Cures while horses work or rest.

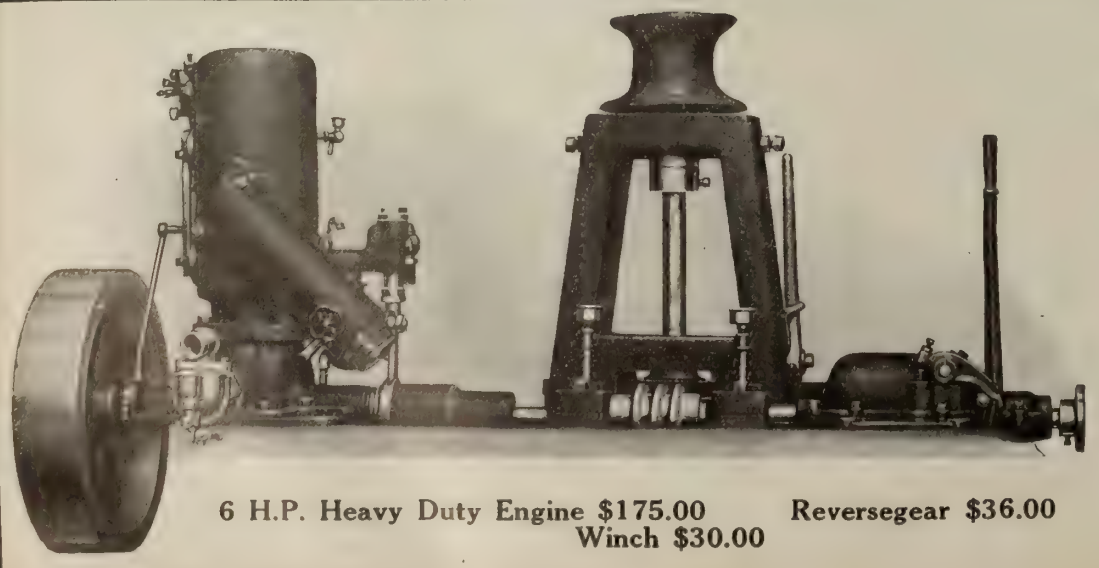
International Foot Remedy
Cures Foot diseases, keeps the hoof soft, elastic and tough

International Harness Soap
Gives new life to old harness.

All our goods are guaranteed to give satisfaction.

Write for Special Prices

International Stock Food Co., Limited
Toronto, Ont.



River Driving Costs

will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25′ punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. Machinery $205.00. Complete punts $375.00. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 H.P.

6 H.P. Heavy Duty Engine $175.00 Reversegear $36.00
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Adams Launch and Engine Co.
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We Carry Full Stocks of

FIGURED CUBAN VENEER

Making a Specialty of 1-20" and 1-8"

We import the highest grades of Fancy Hardwoods and on short notice can furnish logs or seasoned lumber suitable for cabinet work, interior finish or

Fancy Sawed Veneers

Other Stocks are :

English Brown Oak Butts—Sawed to order **Circassian and Turkish Walnut Logs**

High Grade Native Cabinet Woods and Veneers

Memorandum of Stocks on Hand and Prices on Application

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STAVE-HEADING AND BARREL **MACHINERY**

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OUR SPECIALTY.

FOR PRICES AND FURTHER PARTICULARS, ADDRESS

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An Up-to-date Cross-cutting Machine

Made only by **Butterworth & Lowe**

Send for Descriptive Price List. 221 Huron Street, Grand Rapids, Mich.

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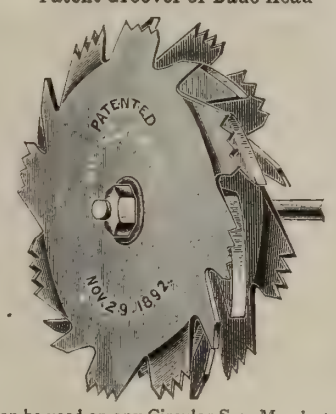
Hollow Ground Combination Tooth Mitre Saw **Patent Groover or Dado Head**



For either Rip or Cross Cutting

Will cut equally as smooth in either Ripping, Cross-cutting or cutting at an angle of 45 degrees, with grain of wood.

Can be used on any Circular Saw Mandrel

For cutting any width groove from 1/8" to 2" wide. Will cut either with or across the grain (Sent on approval).

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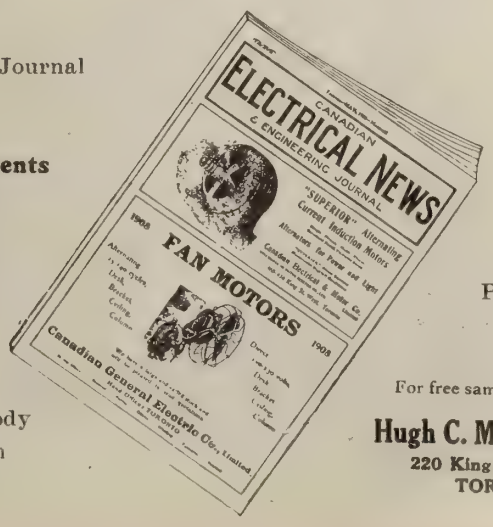

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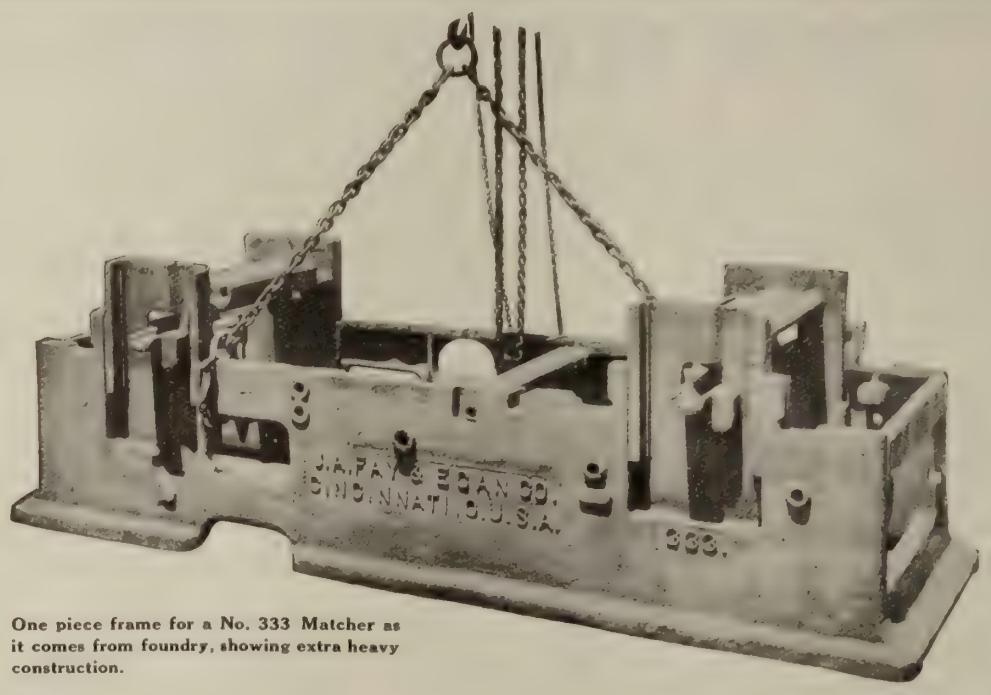

One piece frame for a No. 333 Matcher as it comes from foundry, showing extra heavy construction.

FAY-EGAN "LIGHTNING" "333" Matchers are built with a reserve power sufficient to take care of any increased service required by improved manufacturing methods—

—the extra heavy one piece frame gives the strength, the big gears cut from the solid and running in grease give the power, and construction throughout gives that reserve factor which makes the "333" a good investment not only for today but for many years to come—

—as a straight matcher the "333" has been an unqualified success, in spite of the fierce efforts of competition to keep it out of the field—

—the additional equipment made necessary by improved manufacturing methods—Profilers—Automatic Feeders—Twin Spindle Resaws—Horizontal Band Resaws—all of these we have added to the original "333" and its limit is not yet in sight.

"Can you say as much for the Matcher you are using?"—if not, write us for information on the "333."

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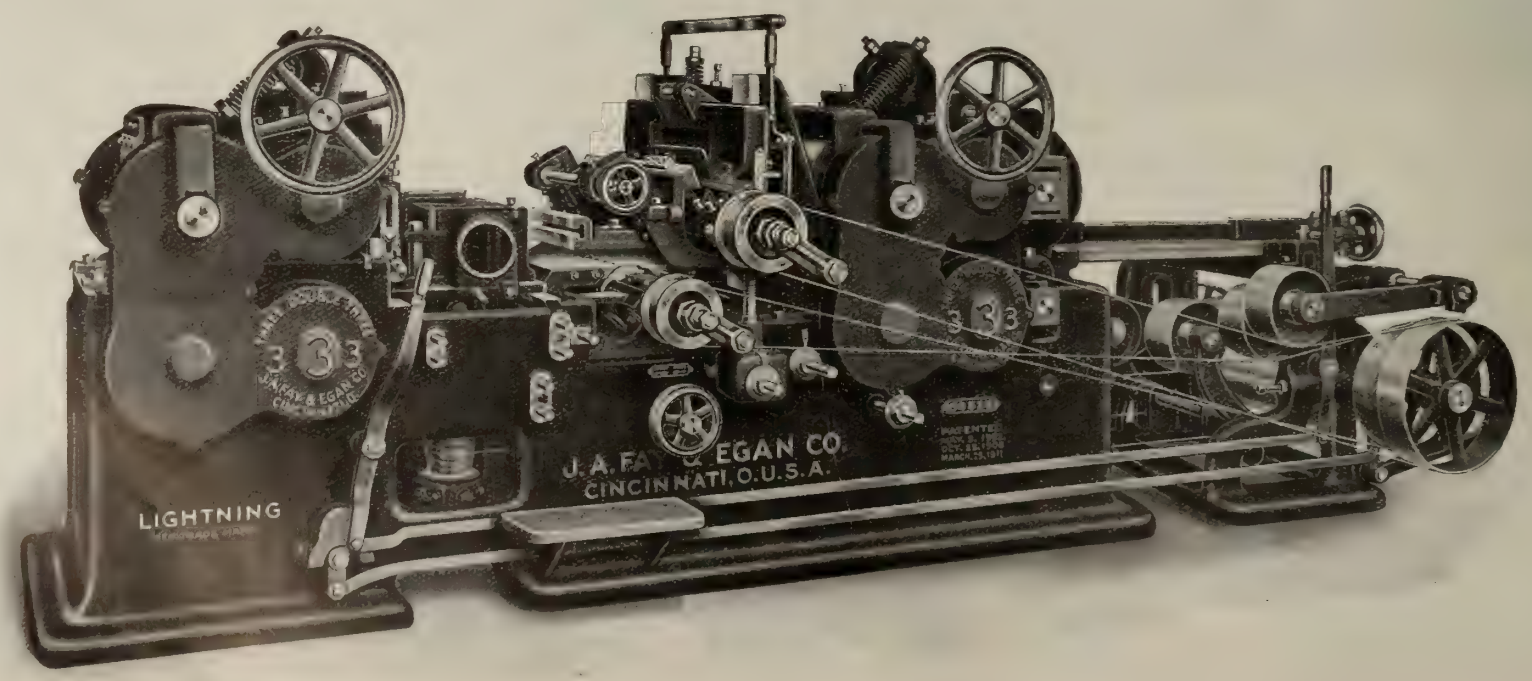

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We solicit correspondence with **British Columbia** timber owners and prospective purchaser

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Morgan Machine Company

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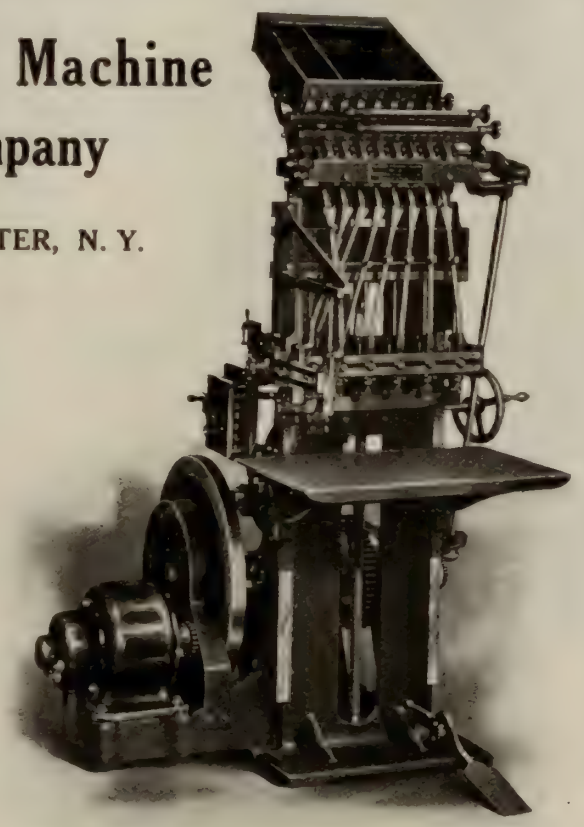

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Lock Corner Box Machinery,

Box Board Matchers,

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Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

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"Dolphin" Waterproof Belting

is the answer for belting troubles in wet places.

Leather belting is acknowledged to be better and cheaper than any other kind of belting for wet places, providing it is waterproof and that the laps will not come apart.

Dolphin Waterproof Belting is guaranteed to meet all these requirements.

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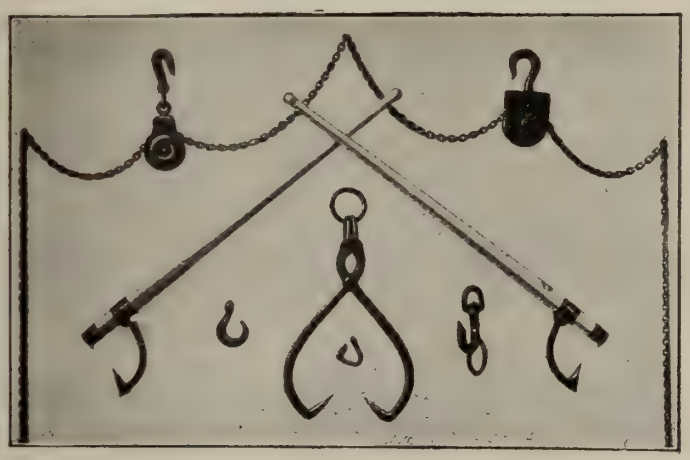

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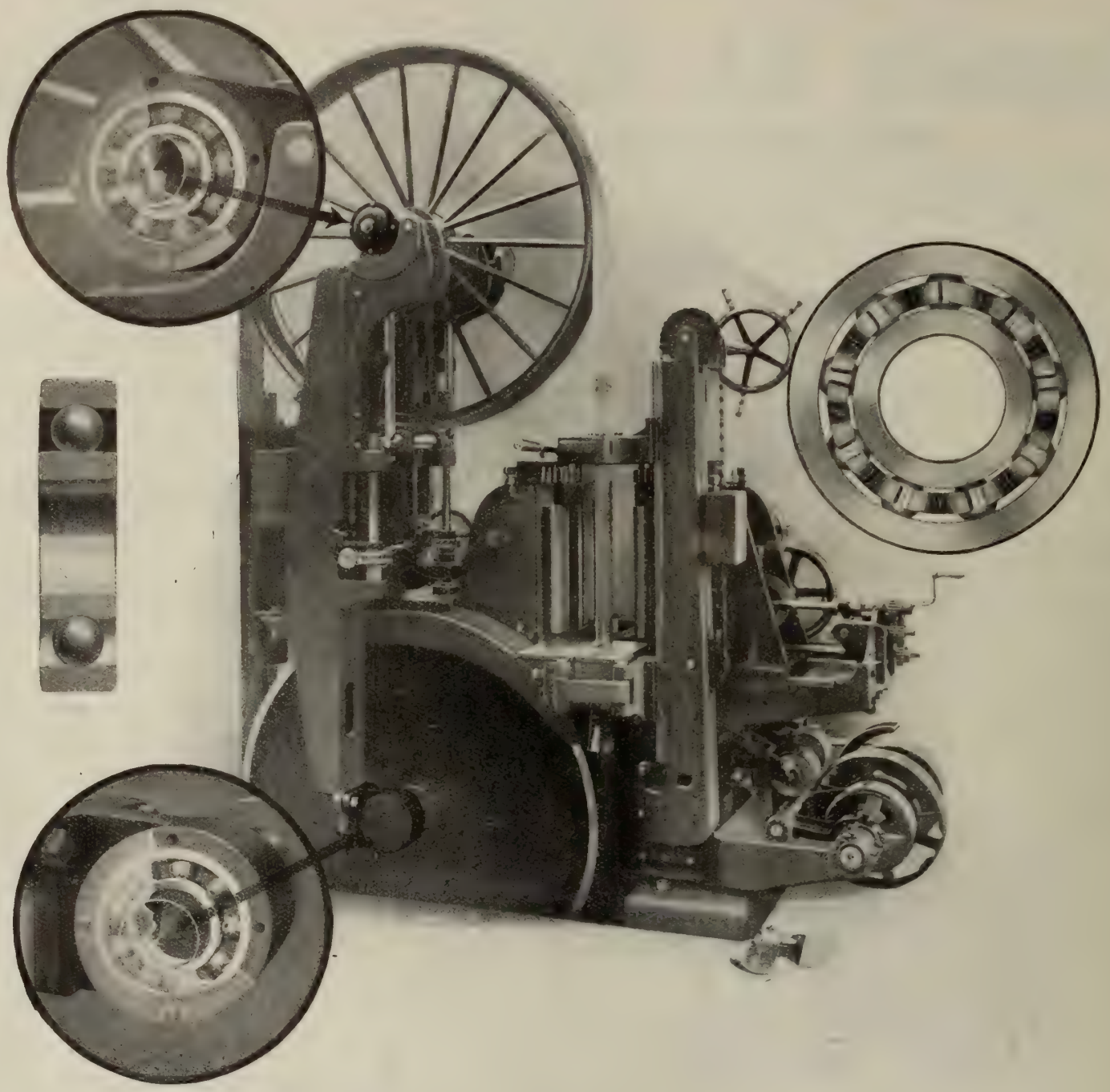
Pink's Lumbering Tools

and if they cannot supply them order direct, and you will get the best tool made

The Thomas Pink Co. Limited

PEMBROKE, Ont., Canada

Manufacturers of the best line of Lumbering Tools in Canada



The American No. 111 Band Resaw

was designed for the application of Ball-Bearings—that's the reason why it is a thorough success The adjustment is perfect, the alignment of the wheels is a thing you can depend upon. Some manufactures have tried Ball-Bearings on their machines, and abandoned them—simply because the mechanical construction—(all right for ordinary babbitted boxes, perhaps)—would not do for Ball-Bearings.

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Makes It's Mark Vivid and Lasting

Marks that remain vivid and wear like iron are a real satisfaction to the man who handles lumber. The metallic pigments, like graphite, of DIXON'S LUMBER CRAYONS offer marvelous resistance to all kinds of weather conditions. Their marks are often visible after six months of severe exposure to sun and storms.

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have always remained the recognized standard because of their one, uniform and dependable quality; their convenient and uniform shape and size and because of the careful selection of materials used in their manufacture. DIXON'S LUMBER CRAYONS are made in nineteen grades and colors, including black (six grades), red (two grades), blue (two grades), green, white, yellow, brown, terra cotta, violet, pink and orange. Some are made to fill particular needs—let us tell you more about them. Get acquainted.

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Wear Like Iron

WE tan the leather these larrigans are made from and know they will stand all kinds of wet and rough usage when properly cared for. We put a counter stiffener in our larrigans and sew it in with the leg when soled and heeled—a very durable feature in our goods.

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Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

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Engine being operated by the Trout Creek Logging Co., Ltd. of Toronto, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

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The Strongest Wood Pulley Made. NAILED and GLUED

We carry the largest stock of Wood Pulleys in the Country.

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This Watchman's Clock Pays for Itself

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The complete cost of

The Hardinge Watchman's Clock and Patrol System

is entirely offset by the reduction of risk and the consequent drop in insurance rates. Any number of keys or stations can be installed with one watch—and all absolutely fool proof. Full details and prices given on request.

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If you are interested in Wire Rope and have not yet received our new catalogue write for copy.

The B. Greening Wire Co.

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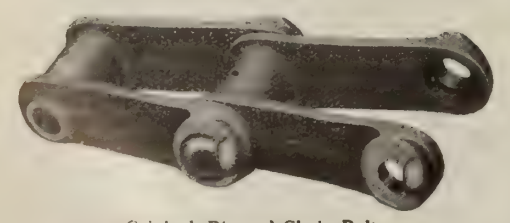
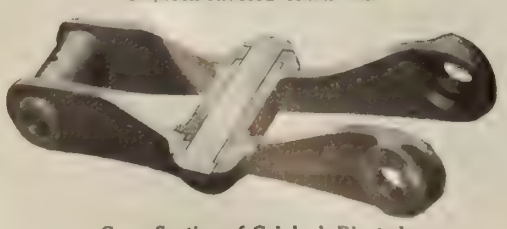


Griplock Riveted Chain Belt



Cross Section of Griplock Riveted

No More Breakdowns—No More Delays

This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock.** **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

Sold by **The A. M. ELLICOTT CO., Montreal, Que.**

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When you need wire rope for any purpose whatever, it will surely pay you to communicate with us.

We have in stock all kinds—in all sizes—in any length.

Should your requirements be special we can make rope to exactly suit your needs. We know how, as we have had years of experience.

Wire Rope Fittings of all Kinds

The Dominion WIRE ROPE Co., Limited
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MAPLE LEAF BELTING

Strong
Waterproof
True
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For
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¶ Maple Leaf is the most economic and efficient belting for power transmission and conveying, etc.

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BEFORE placing your next order for Camp Supplies let us quote you prices for list of requirements. We make a specialty of this class of business.

Orders shipped promptly and we guarantee the quality of all goods shipped.

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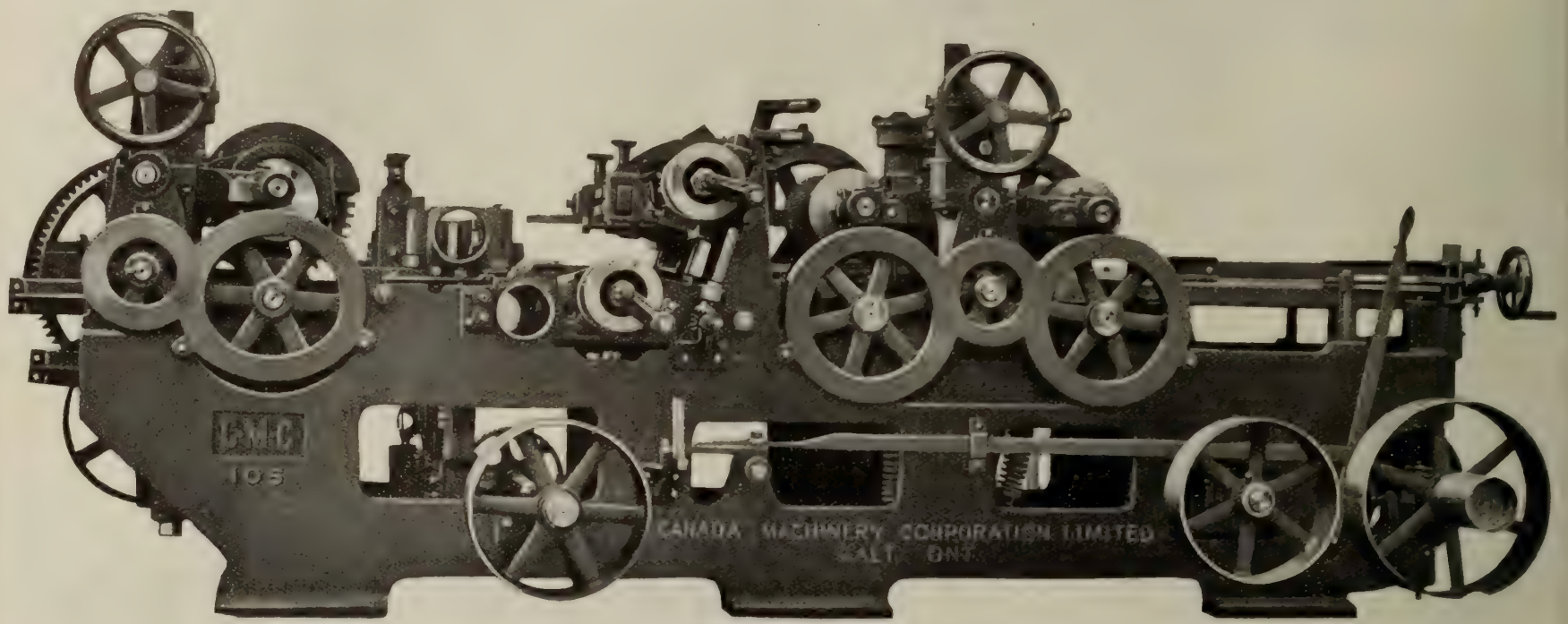
No. 105 MATCHER

C.M.C.

No. 105 MATCHER



C. M. C. No. 105 Medium Weight Matcher.

Our No. 105 Matcher is not our heavy duty fast feed machine but is a high grade medium weight matcher. It is a general purpose machine and for work up to 100 feet per minute ; is without an equal.

It is supplied with five rates of feed from 45 to 100 feet per minute.

Bulletin No. 105 fully describes this machine and will be gladly sent on request.

Have you our complete catalogue? If not let us send you one.

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Canada Machinery Corporation Limited

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for one month.

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FLAT GANGS Unexcelled in the manufacture of

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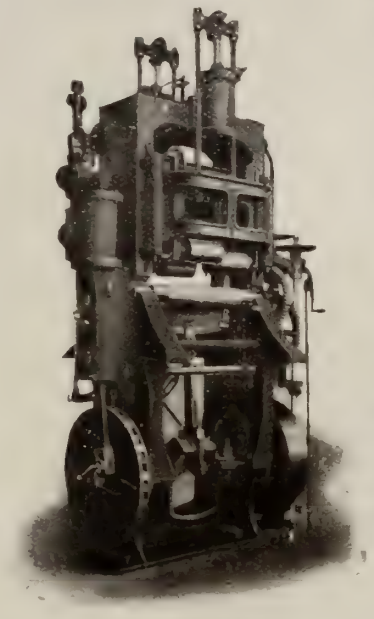
from cants and flitches, from either hard or soft woods.



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JUST WHAT THE NAME IMPLIES —taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install ecomony by the same stroke.

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Think it Over Carefully, then Write us for Details.

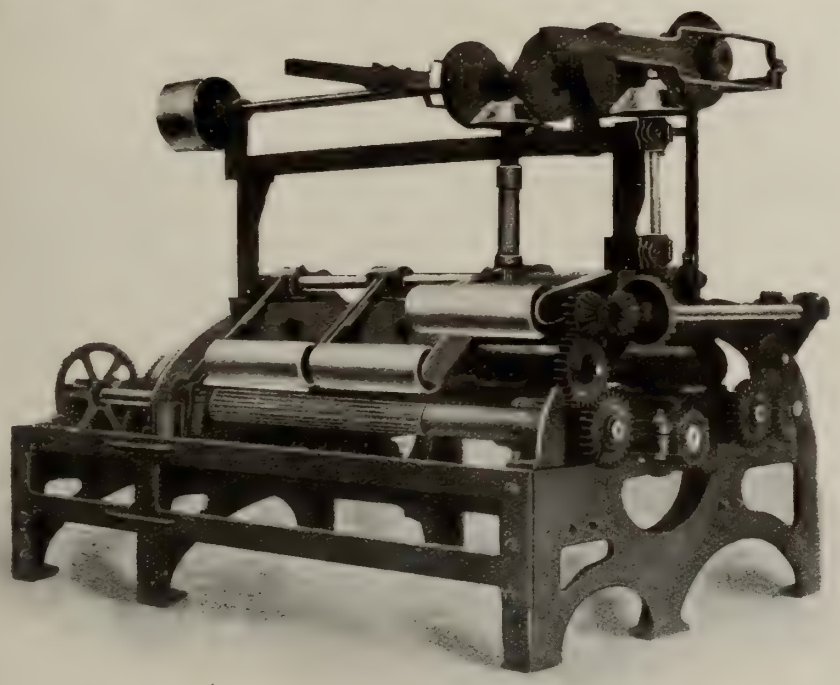
"The Gang cannot Overslab."

Wickes Brothers

410 White Building - - SEATTLE, WASH.

Head Office. Saginaw, Michigan, U. S. A.

Mowry's Jumbo Edger



Our latest model is an improvement on the one illustrated here

Mowry's "Jumbo" Combined Gang and Edger is the most useful mill machine on the market to-day.

It embodies every detail of construction essential to an adequate gang edger. ¶ We have some very flattering testimonials for our "JUMBO."

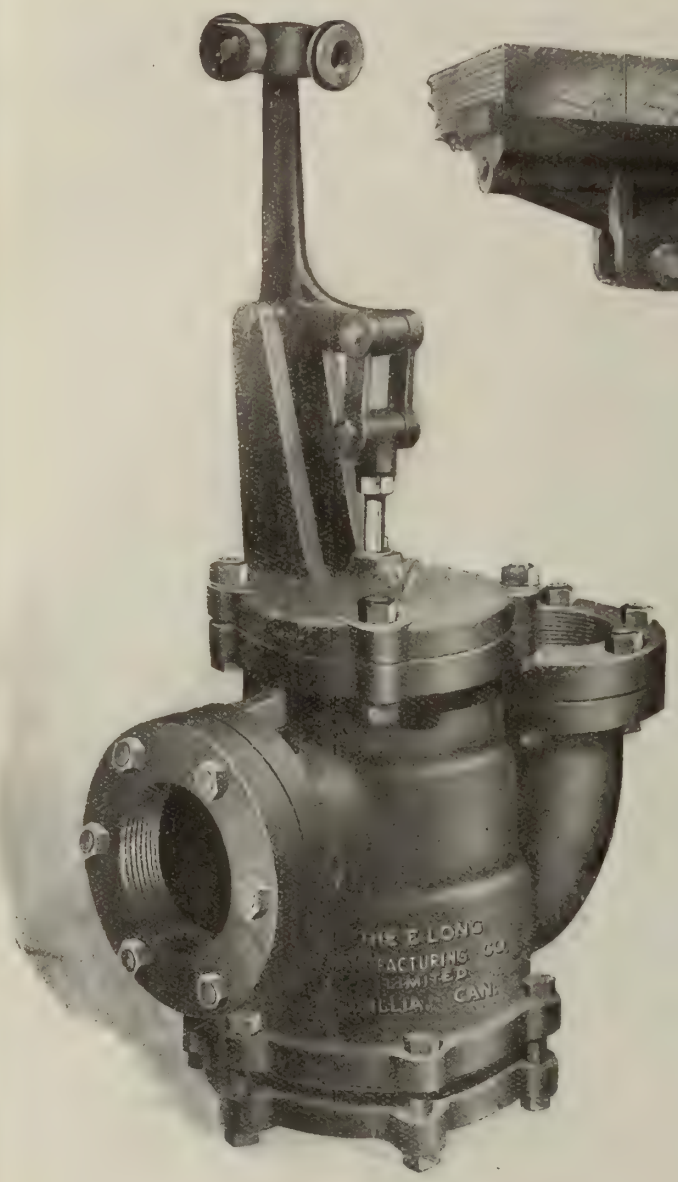
Mandrel: 4½ inches by 10 feet 6 inches long.

Drive Pulley: 20 inches, 20 inches.

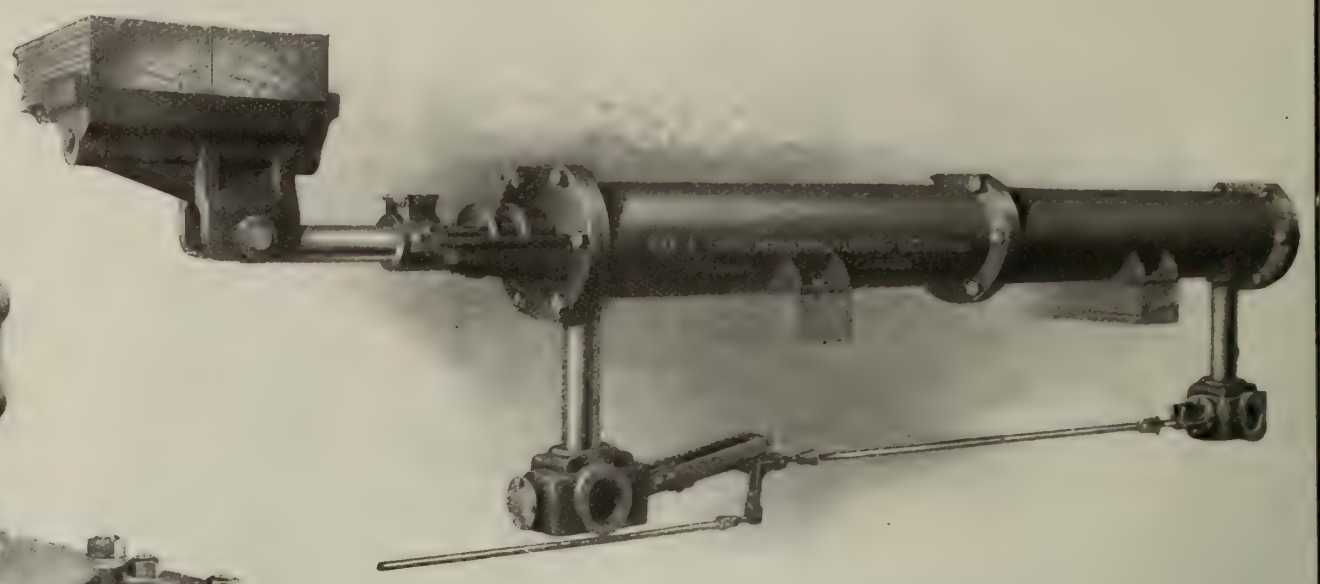
Saws: 2 movable saws on edger side (more if desired) 8 stationary saws on gang side, 2 water boxes.

Let us quote you when you are in the market for Saw, Lath or Shingle Mill Machinery or Repairs.

MOWRY & SONS, Gravenhurst, Ontario



Vertical Steam-Feed Valve



Direct Acting "Shot Gun" Feed

Built in sections to make up any length feed required, with 8 in., 10 in., 11 in., 12 in., and 14 in. bore.

We fit our feeds with **any style of valves required.**

Our "Gun Shot" feeds are money makers wherever used.

FULL PARTICULARS ON APPLICATION

We guarantee that our Valves will not stick or kick. They are perfectly steam tight and are without exception the most economical valves manufactured.

We not only manufacture a complete line of steam feeds, but also a complete line of steam actuated machinery for saw mills of any capacity.

Double Model "D" Valve

The E. LONG MANUFACTURING CO., LIMITED, Orillia, Ont.

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VANCOUVER—Robert Hamilton & Co.

Some Bulletins We Issue

Our new series of catalogues accurately describe and illustrate the line of Sawmill Machinery we now build.

Printed in bulletin form, each is descriptive of one machine or one style of machine only.

You receive a bulletin that is easily handled or filed for reference. It describes only the machine you are interested in and this in a detailed way impossible in a general catalogue. Every page is worth reading.

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CIRCULAR SAW FRAMES
BAND MILLS
EDGERS
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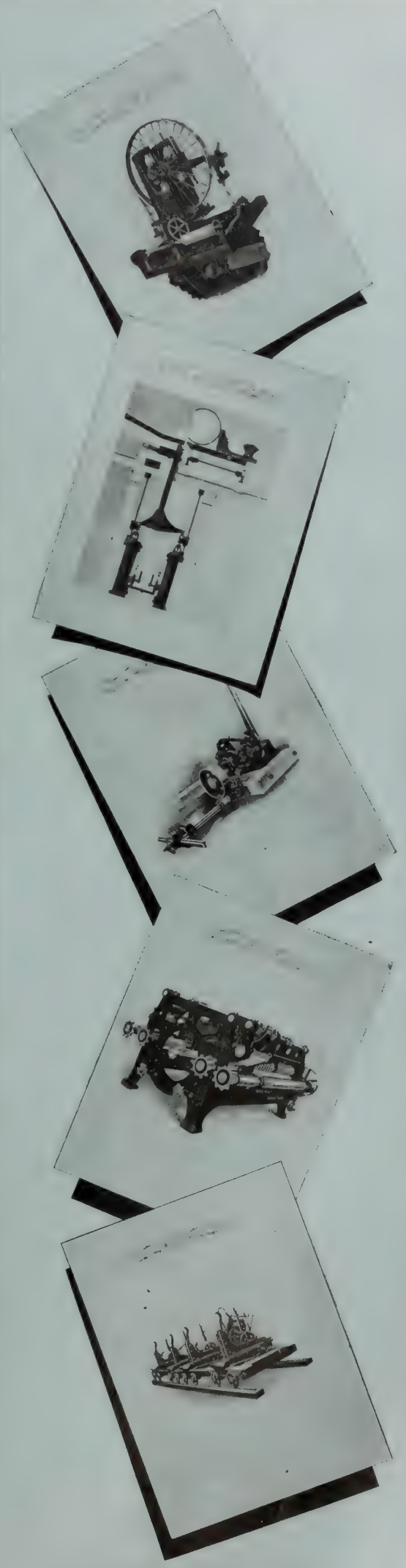
LATHMILLS AND BOLTERS
PLANERS AND MATCHERS
PORTABLE SAWMILLS
LIGHT CENTRE CRANK ENGINES
HEAVY SAWMILL ENGINES
McEWEN ENGINES
STEEL PLATE WORK

Which Shall We Send You?

Mark with a cross the individual bulletins in this list you would like sent, or if you would like the complete set assembled in a handsome binder cross out the lot and attach this page to your letterhead and send it to us to-day.



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American - Arcade - Eagle - Great Western
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are rapid cutters made by

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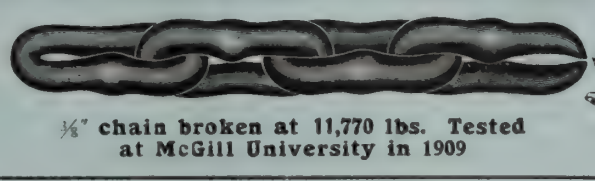
Port Hope, Ont.



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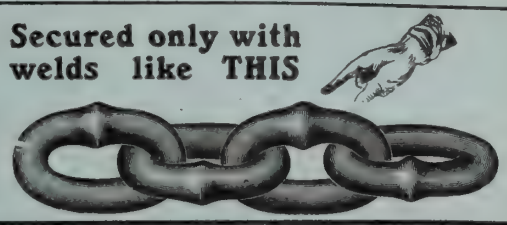
½" chain broken at 11,770 lbs. Tested at McGill University in 1909

25% More Weld = 25% More Strength = 25% More Wear

Tested Steel Chain made at **St. Catharines, Ont.**

Sold by **McKinnon Chain Co.** BUFFALO, N.Y.

Secured only with welds like THIS



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Steel Pulleys Saw Mill Supplies Clutches Babbitt Wood-Working Machinery Steam Goods

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Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults

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UNLINED LINEN FIRE HOSE (Circular Woven and Seamless)

"Underwriters Best" Red and Blue Stripe

MADE to conform to the requirements of the Associated Factory Fire Insurance Company, and is approved and accepted under every high-grade flax-hose specification.

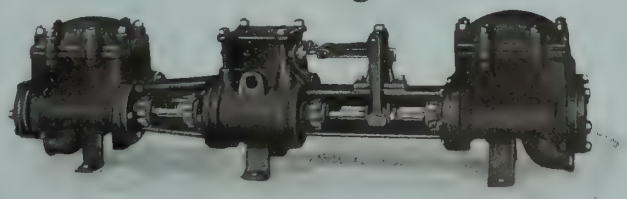
GUARANTEED WATER PRESSURE 500 LBS. PER SQUARE INCH.

F. REDDAWAY & COMPANY

TORONTO SOLE MAKERS OF MONTREAL

"CAMEL HAIR" "CAMEL" BRAND TRADE MARK REG. BELTING

Steam Pumps, Vacuum Pumps, Condensers, Triplex Power Pumps, Centrifugal Pumps and Travelling Cranes



The Smart-Turner Machine Co., Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

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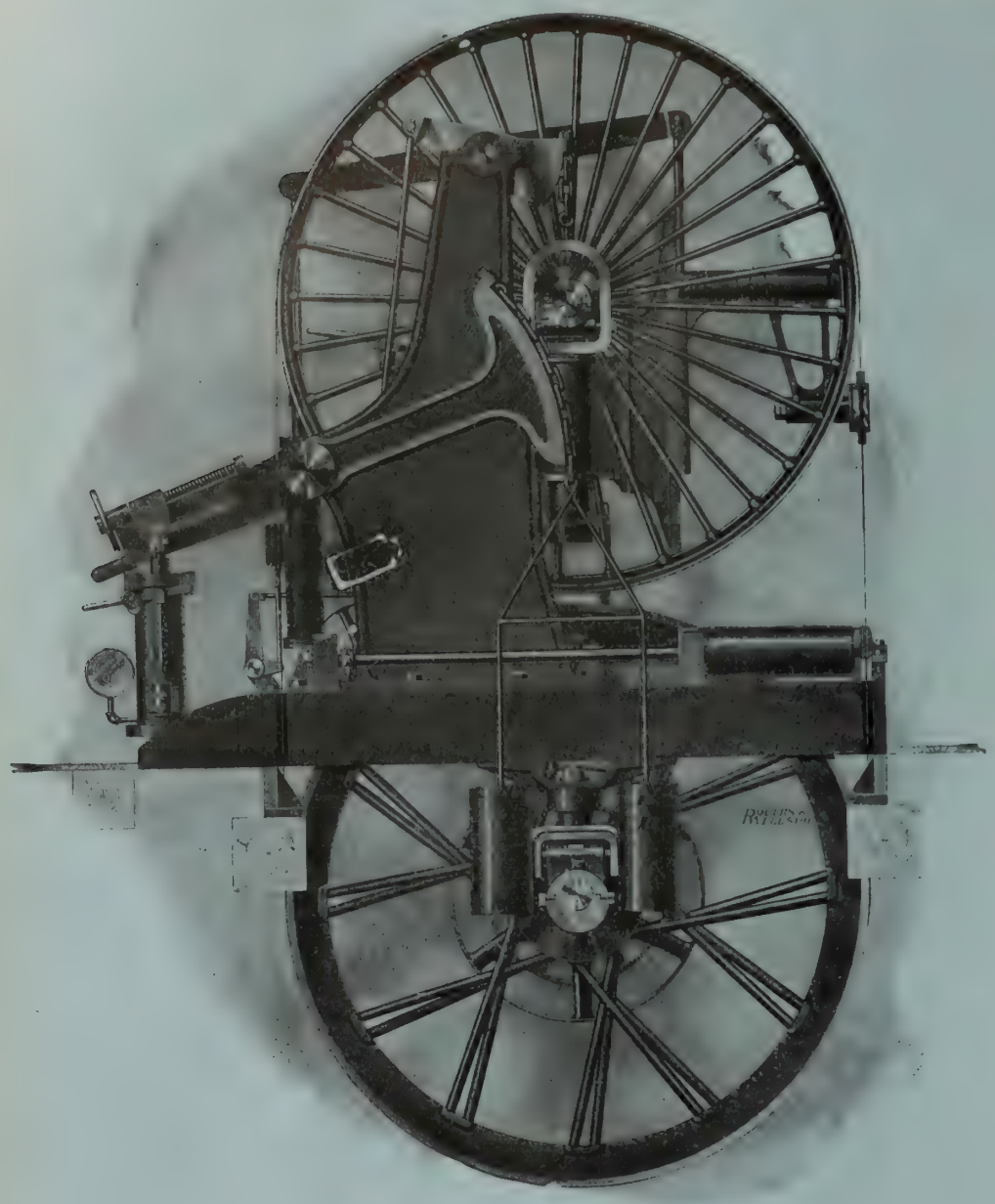


The Steam Tension Band Mill

The steam tension band mill as we make it is entirely different from any other band mill made. Owing to the great success of this mill, many other manufacturers have added steam cylinders to their **standard** mills for operating the top guide and for raising and lowering the top wheel. Of course, these devices at their best are not all they ought to be, but the fact of their being there serves to emphasize the worth of the steam operated mill. Ours is the only band mill which has been **specially** designed from the beginning as a steam tension mill, and consequently the steam cylinders are placed where they should be, and work properly at all times, no matter what your boiler pressure or your sawing conditions.

The advantages of this mill are obvious—the time saved by having **both** the top guide and the upper wheel operated by steam is very considerable, while with our very sensitive steam tension, the saws are easily kept at exactly the right tension to cut perfect lumber, to say nothing of the longer life of the saws.

It costs you a little more to buy this mill because it costs us more to make it, but it saves you far more than the difference in cost in a very short time, and so it is worth more.

Built with 8 foot, 9 foot and 10 foot wheels.

May we send you our catalogue?

William Hamilton Co., Limited

PETERBOROUGH, ONTARIO

VIEW OF OUR MILL AND BOOMS

PINE LUMBER

Cut from the best pine timber in Ontario is what we have to offer our many patrons in Canada and the United States.

We don't want to dissapoint you therefore anticipate your requirements as far ahead as possible for

Norway or White Pine Lumber, Railroad and Structural Timbers, Flooring, Ceiling, Moulding, Siding, Cross-arms, etc.

Place your order now for next year's dimension stock

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Buy Now!

Cover your Winter and Spring requirements against a real shortage and higher prices.

Norway Pine

Cedar Shingles

Spruce Lath

Right now we are ready to supply your every demand—at lowest market prices, in

HEMLOCK
AND
SPRUCE

We have a large stock of good Cull Hemlock and Cull Spruce to dispose of from 1″ to 3″ thick.

We can also fill orders, in any quantity, of **White Pine**—the finest well-watered stock obtainable. Always ready for shipment. We can dress or resaw.

☞ ***Write for prices, etc.*** ☜

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 1200 Claremont Ave., MONTCLAIR, N.J. **Hope Chambers, OTTAWA, CAN., Head Office**

Timber Limits for Sale
on Georgian Bay

The undersigned offer for sale in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; Tug Scow and other Lumber Equipment, including boom chains, plows, sleighs, etc.

The Limits, part of which have recently been sold, include: 440 square miles of licensed and deeded Pine, Hemlock, Spruce, Birch and other timber. The licenses from the Ontario Government include all timbers and are not restricted for time. Government dues are as follows: Saw Logs, White Pine, $1.50 per M. ft., B.M. Saw Logs, Hemlock, Tamarac and other woods 75c. per M. ft. The timber is situated in the Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street. The Canadian Pacific, Canadian Northern and Grand Trunk Railways run through the limits, which makes some of the parcels offered for sale particularly desirable for small mill owners.

A circular giving full information, maps, terms and conditions of sale will be furnished upon application to

The Parry Sound Lumber Co., Limited

1315-20 Traders Bank Building, TORONTO, CANADA

RED GUM SAP

The Kind That Satisfies

May we quote you on a car or two of the following finely manufactured, band saw stock—free from twist and stain, and running at least 60% 14 and 16′ long.

Our Price is Attractive

110,000′ 4/4 1/s and 2/s Red Gum
100,000′ 4/4 No. 1 Common Red Gum
140,000′ 4/4 1/s and 2/s Sap Gum
75,000′ 4/4 No. 1 Common Sap Gum

We Operate Our Own Mill

HAMILTON H. SALMON & CO.

88 Wall Street, NEW YORK CITY

Branch Office: 71 South Street, Buffalo
Mr. Frank T. Sullivan, Manager

Yards: Buffalo, N.Y.,
North Tonawanda, N.Y., Allendale, Pa.

WHITE AND RED PINE

SCENE IN THE SHIPPING YARDS

For prompt shipment we offer the following stock subject to prior sale :—

2 x 5 /up x 12/16 Red Pine
Mill Run 400,000 ft. B. M.

2 x 5 /up x 12/16 White Pine
Mill Run 300,000 ft. B. M.

1 x 12 x 12/16 White Pine
Mill Run 600,000 ft. B. M.

Write us your requirements

JOHN LUMSDEN, Lumsden's Mills, Quebec

Quincy Adams Lumber Co., Limited

MANUFACTURERS AND WHOLESALERS OF

White Pine, Birch, Spruce and Hemlock

Mills at
LONGFORD
KOSHEE
RAVENSWORTH

P. S. Special Price on Dry 4/4 and 5/4 good . Pine Strips and Sides.

Toronto, Canada
51 Yonge Street

The Rideau Lumber Co., Limited

Trafalgar Building, Ottawa, Ont.

We have—of 1911 sawing:

1 x 4, 1 x 5, 1 x 6—12/16′ S. C. and Dressing W. Pine
Factory Shorts and Sidings, 5/4″ to 8/4″—12/16 ″
1 x 4 and up—6/11′ No. 1 Dressing and Better ″

1912—1½″ x 4′ M. R. White Pine Lath.

JAS. PLAYFAIR D. L. WHITE

PLAYFAIR & WHITE

Manufacturers and
Wholesale Dealers

Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

Knowles & O'Neill

WHOLESALE

Lumber, Ties, Pulpwood

Etc.

COMPLETE STOCK OF
Quebec Spruce and Pine Lumber
ALWAYS ON HAND

An exceptionally nice lot of 2″ Pine, well seasoned, for sale, also 1″, 2″, 3″ Spruce, Square and Waney Spruce and Cedar.

Correspondence Solicited. Room 4, Hochelaga Bank Building **Quebec, Que.**

The Golden Lake Lumber Co.

Limited

MANUFACTURERS OF

Lumber, Lath and Shingles

Offer at LOW FIGURE for QUICK sale:

80,000′ 2 x 4 & up 6/16′ No. 1 White Pine Mill Cull
20,000′ 2 x 4 & up 6/16′ No. 2 White Pine Mill Cull
18,000′ 1 x 4 & up 6/16′ Log Run, Dead Culls out White Birch
125,000 pcs. 1½ x ⅜ x 32″ Mill Run Hemlock Lath

All of above, shipment G. T. R. from Golden Lake, Ontario

Head Office: - EGANVILLE, ONT.

THE trend of trade is now towards our **CUTLER** Mills, when customers want anything at **BAY** ports for water or rail delivery, and our **LUMBER** is selling itself by repeat orders from any **COMPANY** to whom we make a shipment. Our stock is **LIMITED** but we still have a goodly quantity to dispose of at prices worth while considering.

DON'T BUY TILL
YOU GET OUR
PRICES

The Eyer Lumber Co.

34 Victoria Street, Toronto
are Selling Agents

Cameron & Co, Limited

Manufacturers

LUMBER, LATH, SHINGLES, TIMBER, POLES and POSTS

We have for quick shipment

Hemlock Ties

Mill and Yard
OPEONGO, ONT.

Head Office
OTTAWA, ONT.

Send your enquiries to our Head Office

The McLennan Lumber Co., Limited

Everything in Lumber
Rough and Dressed
Wholesale and Retail

WRITE US FOR PARTICULARS

21 Dorchester Street West, MONTREAL, QUE.

The Hurdman Lumber Co.

OTTAWA, CANADA Limited

EASTERN

Pine, Spruce, Hemlock, Hardwoods, Timber, Lath and Shingles

WESTERN

British Columbia Timber

at Lowest Prices and any Sizes.

We are open to BUY cuts of Pine; Spruce; Hemlock; Basswood and Ash; and will be pleased to hear from manufacturers having anything to dispose of for cash, will also make contracts now for Basswood to be taken out this winter.

Pine, Spruce, Hemlock, Basswood, Lath

INQUIRE OF

C. A. SPENCER *Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles*

Eastern Townships Bank Building, MONTREAL, Quebec

Toronto Representative: A. T. Dadson, 42 Duggan Ave.

Williams Lumber Company

Wholesale Dealers in

White and Red Pine, Spruce and Lath
ROUGH OR DRESSED

For 5/4 x 4/7 x 12 16 fine dressing strips
6/4 do. do. do.
8/4 do. do. do.
write us before placing your orders.

18 CENTRAL CHAMBERS - OTTAWA, ONT.

Edward Hines Lumber Co.

(BRANCH OFFICE)

Parry Sound, Ont.

All grades of

WHITE PINE

and

Norway Dimension Bill Stuffs

WHITE and RED PINE LATH

WILLIAM H. BROMLEY

Wholesale Lumber

Aux Sable River Forest Reserve Timber Produces Best Lumber in Ontario.

Every lumber dealer and consumer in Western Ontario, Buffalo, Detroit, Central New York and Montreal knows what excellent lumber is produced from Playfair & White's mills at Midland, Ont. I can offer you from that point, all sizes of White Pine and Norway Pine; any quantity of the choicest lumber in the Georgian Bay district. These mills will commence sawing about May 15th.

SPECIAL:—The best block of Basswood in Ontario. estimated 2,000,000 ft. I am prepared to offer, sawn to any size required.

Other stocks of Pine, Hemlock and Spruce at Pembroke, Ottawa and Collingwood.

Quotations promptly given and enquiries solicited

Pembroke - - Ontario

ESTABLISHED 1855

THE McGIBBON LUMBER CO.

OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

JOHN MCKERGOW, President — W. K. GRAFFTEY, Managing-Director

The Montreal Lumber Co. Limited

Wholesale Lumber

Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W

WHOLESALE DEALERS

SPRUCE

13 Foot and 16 Foot

Lath and White Cedar Shingles

CHRISTY-MOIR CO.

149 Broadway, New York City

THE

Brockville Lumber Company

LIMITED

Brockville, Ont.

Morristown, N.Y.

Wholesale and Retail

Lumber, Lath, Shingles, Bill Stuff

And all kinds of SASH FACTORY and PLANING MILL GOODS.

McLennan Timber Lands and Lumber Co. Limited

Selling Agency and Dealers in all kinds of

Timber Lands

Offices: Gazetteville, N.Y.
Quebec, 138 St. Peter St.

RAILS For Tramways, Sidings, Etc. New and Second Hand

YARD LOCOMOTIVES

John J. Gartshore

58 Front St. W., TORONTO

Hardwood Flooring

The Celebrated Diamond Brand

End Matched, Bored, Polished and Bundled

Manufactured by

SIEMON BROS., LTD.

For prices write

W. T. EAGEN

Selling Agent for Ontario and Quebec

203-4 McKinnon Bldg.

Phone M. 6316 TORONTO

Pine Doors

That Are Right

Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

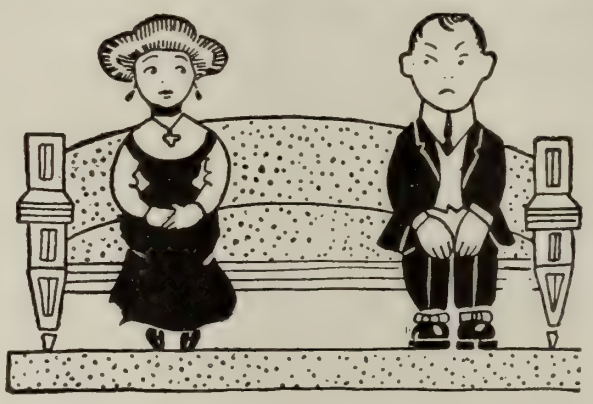
No. 3 Pine Doors

THE

Pembroke Lumber Co.

Pembroke, Ontario

Don't Hesitate



It only requires one trial of our

Hemlock, Pine and Hardwood

to convince you of the good solid permanent trade that it will help you to secure.

We are waiting for you to try us—Don't Hesitate.

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

We have the following stocks in good shipping condition:

1-in. Birch, No. 1 com. and bet.,	167,000 ft.
1-in. Birch, No. 2 com. and bet.,	70,000 ft.
1¼-in. Birch, No. 1 com. and bet.,	30,000 ft.
1½-in. Birch, No. 1 com. and bet.,	30,000 ft.
2-in. Birch, No. 1 com. and bet.,	30,000 ft.
3-in. Birch, No. 1 com. and bet.,	30,000 ft.
1-in. Maple, No. 2 com. and bet.,	60,000 ft.
1½-in. Maple, No. 1 com. and bet.,	70,000 ft.
3-in. S. Elm, No. 1 com. and bet.,	30,000 ft.
2-in. S. Elm, No. 1 com. and bet.,	12,000 ft.
1-in. White Bass,	10,000 ft.
1½-in. White Bass,	1,000 ft.

Want to buy Elm and Hemlock?
Please let us hear from you.

The Meaford Lumber Company

Toronto Office, 539 Lansdowne Avenue.

The

North Channel Lumber Co.

Limited

Successors to

SAGINAW LUMBER & SALT CO.

MANUFACTURERS OF

Pine Lumber

Saginaw, Mich. U.S.A.

Mills at Thessalon Ont.

WE Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

AUGER & SON

QUEBEC

HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.

NIAGARA FALLS, N.Y.

The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

Orillia, Ont.

R. LAIDLAW LUMBER CO.

LIMITED

Toronto

Sarnia

Buffalo

Imperial Timber & Trading Co.
LIMITED
VANCOUVER, B.C.
Branch Office:
18 Thomas Block,
CALGARY, ALTA.

Douglas Fir
Construction Timbers
any size up to 110 feet

High Grade XXX
Red Cedar Shingles

Export and Rail Shipments.

CANADIAN OFFICE & SCHOOL FURNITURE
CO. LIMITED
PRESTON ONT.
FINE BANK OFFICE COURT HOUSE & DRUG STORE FITTINGS
OFFICE. SCHOOL. CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

WANTED
100 m ft. clear hard Maple axles 4 in. x 5 in.-6ft. and 12 ft. long. Also all thicknesses Common and Better Birch.

For Sale

All grades and thicknesses of Cherry and Mahogany lumber. Also Mahogany, Circassian Walnut and Quartered White Oak veneer all thicknesses. Please let us hear from you.

WARREN ROSS LUMBER CO.
Jamestown, N. Y.

SPECIALTIES
Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie
Pine and Hardwood
Lumber
Lath and Shingles
North Tonawanda, N. Y.

"Well Bought is Half Sold"

SPECIAL STOCK OFFER

5 Cars	1" M. R.	Red Pine
5 "	1" C. & C. F.	"
3 "	6 4 "	"
1 Car	2" "	"
4 Cars	2 x 6 8-18	"
2 "	2 x 10-18'	"
2 "	1 x 8"	No. 1 Spruce
½ Car	1 x 10 12"	" "
½ "	5 4 x 8" Sel. M. R.	W. Pine
½ "	2 x 8 " "	"

Above all in shipping condition F.O.B. Midland.

Let us have the pleasure of quoting.

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine and Hemlock Lumber

730 Traders Bank Building, Toronto, Ont.

Mills: Byng Inlet, Ont.

We are Buyers of
Hardwood Lumber
Pine and Spruce
Veneers (3 or more ply) Handles (all descriptions)
Staves Hoops Headings
JAMES WEBSTER & BRO., Ltd.
Bootle, Liverpool, England
London Office:
Dashwood House 9 Broad St., E.C.
News Chambers, 57 Hope St., Glasgow

Cant & Kemp
52 St. Enoch Square
GLASGOW
Timber Brokers
Cable Address, "TECTONA," Glasgow
A1 and A B C Codes used

Smith & Tyrer Ltd.
Agents for Shippers of
SPRUCE, PINE, HARDWOODS AND OTHER WOOD GOODS.
Please Offer Stocks on hand.
26 Chapel St., LIVERPOOL

FARNWORTH & JARDINE
Cable Address: Farnworth, Liverpool
WOOD BROKERS and MEASURERS
2 Dale Street, Liverpool, and Seaforth Road, Seaforth Liverpool England

Saddle Tank Locomotives
Geared Locomotives
Steel Rails
Flat Cars
All Secondhand
Correspondence solicited
SESSENWEIN BROS.
Montreal

Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office: — Pacific Building, VANCOUVER, B. C.**

Long Lumber Company

Head Office
Hamilton, Ontario

Branch Office
Traders Bank Building
Toronto, Ont.

IN GOOD SHIPPING CONDITION, AT PARRY SOUND

150,000 ft.	2 x 4 — 10/16	Red Pine	
150,000 ft.	2 x 6 — 10/16	"	
150,000 ft.	4 x 4 — 10/16	"	
150,000 ft.	1 x 4 — 10/16	"	Flooring Strips

4/4, 5/4, 6/4, and 8/4 Clear and Clear Face Norway.
We have 10 cars of 3X B. C. Shingles in transit.

WRITE FOR PRICES

Wm. Milne & Son, Ltd.

Manufacturers:

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.
Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

Spanish Mill

White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel shipment only.

THE M. BRENNEN & SONS MFG. CO.

HAMILTON, ONT.

MATCHING, DRESSING AND RE-SAWING

done in transit at lowest prices. We are equipped to dress and bore heavy Georgia Pine Timbers.

Casey-Shaw Lumber Co. Limited

Sudbury, Ontario

Manufacturers of

Lumber and Lath

Planing Mill Work

SAW MILLS
Long Lake, Ont. and Blezard, Ont.

GENERAL OFFICE
Sudbury, Ont.

Lumber Wanted

We want 1" Crating Spruce and 1" Elm Crating. Write us telling what you have to offer.

The Glengarry Lumber Co., Limited
Berlin, Ontario

TORONTO WHOLESALERS

Full Stock Dry Pine and Hemlock

BILLS IN PINE AND HEMLOCK

Cut to Order

NEW TELEPHONE ADELAIDE 1783

The Fesserton Timber Co., Limited

15 Toronto St., TORONTO

Mills at FESSERTON, ONT.

JOHN DONOGH & CO.

Wholesale Dealers

Have HEMLOCK and SPRUCE for sale

Full stock in all grades and sizes

B.C. Cedar Shingles - N.B. Cedar Shingles

—WRITE US—

1205 TRADERS BANK BUILDING, TORONTO

When requiring quick delivery of

XXX B. C. Red Cedar Shingles

write, wire or telephone us. We now have Eighteen Cars in transit, a few being unsold.

C. A. Larkin Lumber Co.

Limited

627 Confederation Life Building

TORONTO

Do You Want a Salesman?

¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

LEAK & CO., LIMITED

18 Aberdeen Chambers

TORONTO, ONT.

We are in the market for Hemlock, Spruce and Hardwoods, also No. 1, 2 3 Lath.

Send us list of anything you have to offer.

Spears & Lauder

are open to contract to cut out this winter culls of Pine and Spruce timber logs, 12 to 30 feet long.

Head Office: 501 Kent Bldg., - TORONTO

The

Elgie & Jarvis Lumber Co.

Limited

18 Toronto Street, Toronto, Ont.

We are in the market for

Stocks of

Hemlock Lumber

We have two million feet of Hardwood to offer—

Maple 1″ to 4″.
Maple Good Squares 5 x 8 to 8 x 8
Birch 1″ to 4″. Elm 1″ to 4″.
Beech 1″ and 1 1/2″. Basswood 1″ to 1 1/2″.
Basswood 6/4 x 8 up, 1st. & 2nd.

Send in your inquiries, and we will name you low price and give you the grades.

C. G. ANDERSON LUMBER CO.

Manning Chambers, TORONTO

JOHN GILLIES
President

DAVID GILLIES
Vice-President

J. S. GILLIES
Sec.-Treas

Established
1873

GILLIES BROS. Limited

Mills & Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

Cedar Shingles and
Railway Ties

RED PINE, SPRUCE, HEMLOCK, CEDAR

New York City
Guy E. Robinson, 1123 Broadway

Planing Mill, Yard & Office
MORRISTOWN, N.Y.

CAPACITY 40,000,000

The

Georgian Bay Lumber Co.

Limited

Waubaushene, Ontario

Manufacturers of High Grade

Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

White Pine
Red Pine
Spruce
Lumber and Lath

Office, Castle Building 53 Queen St. Ottawa, Can.

F. N. WALDIE, President. R. S. WALDIE, Vice-President. W. E. HARPER, Secretary.

The
Victoria Harbor Lumber Company
Limited

Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont. Head Office, 12-14 Wellington Street East, TORONTO, ONT.

Dependable Quality . . . **The Path of Prosperity** *Reliable Service . . .*

Pine
Hemlock
Spruce
Hard-woods
Rough
and
Dressed

We make a Specialty of Long Timbers

Fassett Lumber Co.—View of Mill

We have complete stock of well seasoned lumber for general yard trade and prepared to make prompt shipments to any market

Fassett Lumber Company, Limited

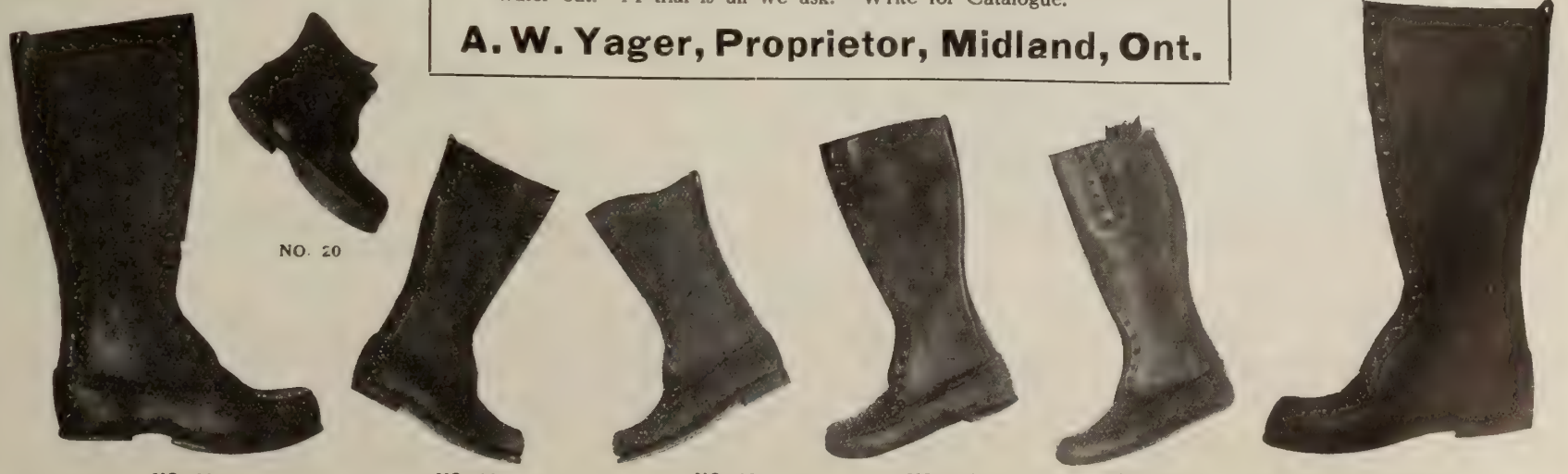
FASSETT, QUEBEC

NO. 11 NO. 16 NO. 15 NO. 14 NO. 17 NO. 19 NO. 6½

The Midland Shoepack Factory

We manufacture the only watertight Shoepack in Canada. Our work is all sewn with 12 cord No. 15 Barbour's Shoe Thread and does not rip if worn for three or four years. We **DO** keep the water out. A trial is all we ask. Write for Catalogue.

A. W. Yager, Proprietor, Midland, Ont.



NO. 10 NO. 20 NO. 12 NO. 13 NO. 7½ NO. 6 NO. 9

FOR QUICK SHIPMENT

We offer the following stock, subject to prior sale—All Dry Stock:

A few cars left of:

5/4 x 6/8/10 No. 1 and 2, Barn
6/4 x 6/8/10 No. 1 and 2, Barn
200M 1", 1½" and 2" x 12—12/16 Spruce
100M 3 x 10—10/16 Spruce
1" x 4", 5" and 6" No. 1 and 2, Barn
1½" x 4", 6" 8" x 10" No. 2, Barn and Better

From Small Logs

1", 1¼ and 2 x 4,—10/16' Spruce, rough or dressed
" " 2 x 5, " " "
" " 2 x 6, " " "
" " 2 x 7, " " "
" " 2 x 8, " " "

1", 1¼ and 2 x 10,—10 16' Spruce, rough or dressed
" " 2 x 12, " " "

A choice lot of 1" Ash and winter sawn 1" Basswood; also Birch Flooring in all grades and thicknesses.

1 x 4/up, 6/11' Mill Run Hemlock, Mill Culls out.
1 x 4/5", 12/16' " " " " " "
1 x 4/6", 12/16' " " " " " "
2 x 4/up, 12/16' " " " " " "

2 x 6, 7, 9 & 11", 12/16' Mill Run Hemlock, Mill Culls Out
3 x 8, 10 & 12", 12/16' " " " " "
Also Log Run Hemlock, Dead Culls out.
Scant 2 x 6, 8 and 10", 6/16'

Send us your inquiries. We can supply you all your wants in Pine.

DRESSED LUMBER OUR SPECIALTY

Write, wire or 'phone us for prices before placing your orders.

W. C. Edwards & Co., Limited

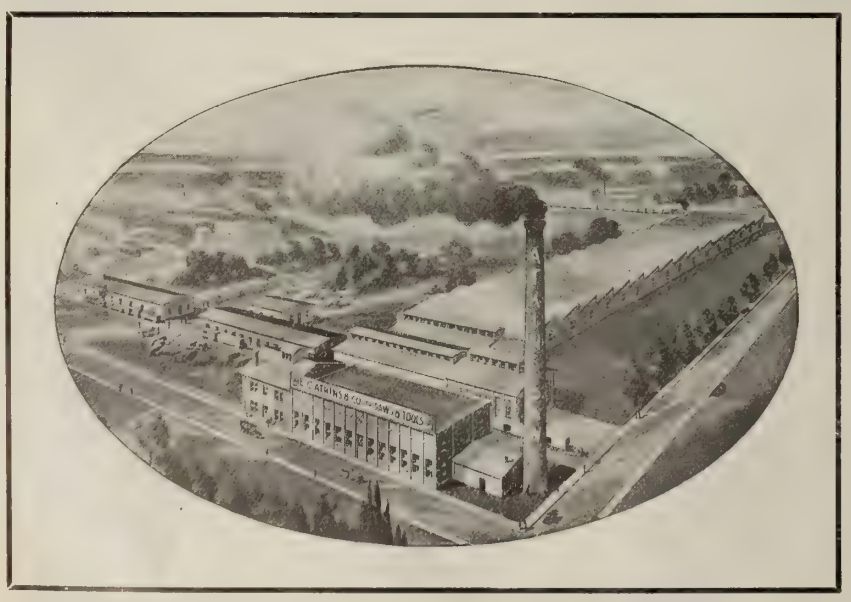
Ottawa, Ont.

Mills at Ottawa and Rockland **Planing Mills and Factories at Ottawa**

"EVERYTHING IN LUMBER"

ATKINS STERLING SAWS

Made in Canada



Band,

Circular,

Cross Cut

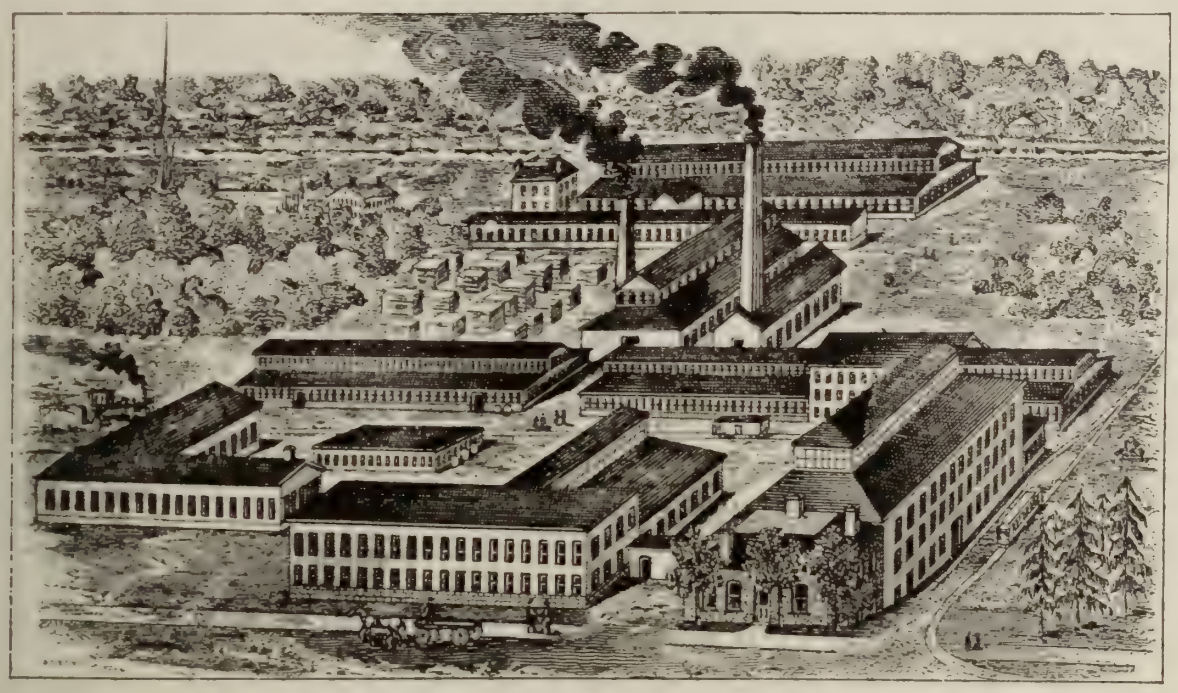
A Perfect Saw for Every Purpose

E. C. ATKINS & CO., Makers of STERLING SAWS Factory, HAMILTON, ONT.

Vancouver Branch, 109 Powell Street

MAPLE LEAF SAWS

The Improved Racer Cross Cut Saw, by Actual Test, is the Fastest and Easiest Cutting Saw Made



The Maple Leaf saw is higher priced than the ordinary saw because it costs more to make it. It is made of the very highest quality of steel and tempered by a secret process which toughens and refines the steel. The Maple Leaf trade mark on the saw means that it is the equal, if not superior to any saw made. It also means that you are privileged to test it against any other make and if not found equal or superior in quality you can return it and have your money refunded.

The ambition of the manufacturers of the Maple Leaf Saws has always been to produce the best tempered saw in the world and they are constantly investigating and experimenting with this end in view. They have recently made some valuable discoveries in evenness of temper. It has always been difficult to get a perfectly even temper on long and thin sheets of steel, such as saws are made of. Our recent discoveries make this an absolute certainty. Every user of saws should bear in mind that the temper of the saw is its most valuable quality. High finish and attractive appearance amount to nothing if the temper is not right.

All Maple Leaf Saws are Guaranteed to be Perfect in Temper

Shurly-Dietrich Co., Limited Galt, Ontario

GARLOCK PACKINGS

Garlock Regular Rings

For all general purposes outside of high pressure work. This Packing is a special grade thoroughly lubricated with the celebrated "Garlock" compound, and is the perfected result of over thirty years experience in manufacturing fibrous Packings.

Garlock Square Duck Packing

Made of good quality Cotton Duck and friction for cold water.

Garlock High Pressure Gaskets

Absolutely heat proof, will not vulcanize or blow out under any steam pressure, being made of long fibre Asbestos Brass Wire Insertion.

Garlock Red Sheet Packing

Made of high grade Rubber compounded in such a way as to give it great strength and reliability.

This Packing has established wide reputation on its own merits.

Garlock Cloth Insertion Sheet

Used on cold and warm water pipes. Is unexcelled in pliability, smoothness of finish and strength of Cloth Insertion.

Garlock Rubber Valves

Specially made to meet specific conditions—absolutely unaffected by oils.

Before placing your next order for supplies get our prices on Leather, Rubber and Canvas Belts, Hose, Brass Valves, Babbitt Metals, Saw Blades, Files, Emery Wheels, etc. Write for catalogue.

THE GARLOCK PACKING CO.

Head Office and Factory: HAMILTON, ONT.

MONTREAL TORONTO WINNIPEG

E. H. Heaps & Co., Ltd.

Lumber, Shingles, Doors, Mouldings, Finish, etc.

Specialties: AA1 BRAND HIGH GRADE SHINGLES
LONG FIR TIMBER

Mills at
Vancouver and Ruskin, B. C.

Head Office: 445 Hastings Street West
VANCOUVER, B.C.

The Fernie Lumber Company, Limited

FERNIE, B. C.

MANUFACTURERS OF AND DEALERS IN

Rough and Dressed Lumber

Tamarac, Spruce and Cedar

Fence Posts, Telephone and Telegraph Poles

Moulding in Stock or Made to Order

A. McDOUGALL, President

ASH BASSWOOD CHESTNUT CHERRY COTTONWOOD

BUCKEYE CYPRESS MAHOGANY

Need any Oak?
Need any Poplar?
Need any Chestnut?

OUR SPECIALTY—The supplying of high class lumber—at right prices.

Shipment direct from mill—good grades.

YOU CAN'T AFFORD to manufacture Oak Flooring when you can buy it—ready to lay—at our prices.

CAN MAKE PROMPT DELIVERIES

THE F. T. PEITCH CO.,

CLEVELAND, OHIO

GUM POPLAR SYCAMORE

PLAIN AND QUARTERED OAK YELLOW PINE

Pine Larch

THE HALL MARK OF QUALITY

Selects
Shops
Commons
and
Mouldings

Timbers
Yard Stock
Clears
and
Mouldings

The East Kootenay Lumber Co. Limited

Head Office: JAFFRAY, B.C.
Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

For low prices and prompt shipment of

Yellow Pine Timbers
Short Leaf Finish
Chestnut --- Oak --- Ash
Cypress
New Brunswick Shingles

TRY

Fred S. Morse Lumber Co.

Box 1600 SPRINGFIELD, MASS.

Dry Lumber For Sale

View of Saw Mills, Pembroke, Ont.

White and Red Pine, Spruce, etc.

100,000 ft.	5/4 x 4/7	x 12/16	S.C.W.P.
200,000 ft.	6/4 x 4/7	x 12/16	" "
100,000 ft.	1 x 8 & up	x 12/16	" "
100,000 ft.	5/4 x 8 & up	x 12/16	" "
200,000 ft.	6/4 x 8 & up	x 12/16	" "
200,000 ft.	2 x 8 & up	x 12/16	" "

(All Box Out)

ROUGH OR DRESSED

Fast Feed Planing Mill in Connection.

Send us your enquiries

The Colonial Lumber Co., Ltd.

Pembroke, Ont.

Our Inserted Saws are Fitted with our Patent I.X.L. Bits and Shanks, warranted not to slip sideways, and to cut free and easy, and have no equal in hardwood or any other timber.

Saws Band, Gang, Solid and Inserted Tooth Circulars, Bits and Shanks

Carried in Stock at our Ottawa Branch. Special Attention given to all Saw Repair Work.

The A. J. Burton Saw Co., Ltd.

HEAD OFFICE AND FACTORY
VANCOUVER, B. C.
BOX 848
Phone 1748

EASTERN OFFICE, SALES-ROOMS AND REPAIR WORKS
374 Sparks St., OTTAWA, ONT.
Phone 7458

MARITIME PROVINCES

Maritime Lumber Co.
Limited

Head Office: Saint John, N. B.
Branch Office: 180 St. James St. Montreal, P. Q

OFFER FOR IMMEDIATE SHIPMENT THE FOLLOWING WHITE PINE

500,000 ft. 1 x 6 to 1 x 12 White Pine
1sts, 2nds and 3rds

500,000 ft. 1½ x 7 to 1½ x 12 "
1sts, 2nds and 3rds

500,000 ft. 2 x 7 to 2 x 12 "
1sts, 2nds and 3rds

500,000 ft. 3 x 7 to 3 x 12 "
1sts, 2nds and 3rds

300,000 ft. 3 x 4, 5 and 6 "
1sts, 2nds and 3rds

The above Pine is last year's cut, 1st, 2nd and 3rd Quality

Donald Fraser & Sons, Limited
CABANO, QUEBEC

MANUFACTURERS OF

Long Lumber

Rough and Finished

Shingles, Clapboard,
etc.

To Reach More Lumber Buyers

Canadian lumber manufacturers and wholesalers should advertise regularly and prominently in the

Canada Lumberman & Wood Worker

This paper reaches all the principal buyers of Canadian lumber at home and in Great Britain, United States, Europe, South America.

Rates on application to the head office.

220 King Street West
TORONTO - ONTARIO

We Offer—Several Cars
"CLEAR WHITE" CEDAR SHINGLES
At Special Price For Shipment to
POINTS NORTH AND WEST OF TORONTO

Dalhousie Lumber Co., Limited
Dalhousie, New Brunswick
Agents for Ontario R. Laidlaw Lumber Co., Limited
Toronto

Selling Mill Stock
If you desire to get beyond the retail dealer and reach the builder and the architect it will pay you to advertise in the

Contract Record
and **Engineering Review**

the only weekly paper in Canada for builders, architects, etc.

Send for sample copies and rates to the publishers

Hugh C. MacLean, Limited
Toronto, Ontario

Bathurst Lumber Co., Ltd.

Bathurst, N. B.

Two modern saw mills equipped with the latest improved machinery enable us to carry always in stock a large assortment of Dry White Pine and Spruce.

Located on Bathurst Harbour for Water Shipment and on the Main Line Intercolonial Railway for Rail Shipment, we can

Reach Any Market in the World

Possessing the best standing timber in the Maritime Provinces we are able at all times to supply lumber of uniform high quality and strictly up to grade.

Stock Now Ready for Shipment

Clear and No. 1 Spruce

100M 1x4″ and up, fine stock, good widths
50M 1¼x4″ and up, fine stock, good widths
200M Scant 2x4″ and up, fine stock, good "

Merchantable Spruce

100M 1¼x6x10 ft. and up
200M 1¼x8x10 ft. and up
200M 1¼x9x10 ft. and up
50M 1¼x10x10 ft. and up
100M 1¼x5 and 7x10 ft. and up
1000M Scant 2x6x12 ft. and up
200M 2x8x12 ft. and up
300M 3x6x10 ft. and up
200M 3x8x10 ft. and up
100M 3x10x10 ft. and up

No. 3 Barn and Better Pine

5 Cars 1x6″, 10 ft. and up, nice lumber
5 Cars 1x8″x10 ft. and up, nice lumber
5 Cars 1x10x10 ft. and up, nice lumber
2 Cars 1x12x10 ft. and up, nice lumber
10 Cars 1x7″ and up, 10 ft. and up, nice lumber

Log Run Birch

150M 1¼x4″ and up, 6 ft. and up
75M 1½x4″ and up, 6 ft. and up
25M 2x4″ and up

Cedar Lath

3 Cars 1⅜x⅜x4 ft.

Write for our monthly stock list giving full particulars of our lumber ready for shipment

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

J. M. Clifford & Co.

Manufacturers and Dealers in all Kinds of

Hardwood Lumber

Poplar Basswood Cypress Elm Oak Ash Maple

We have a full stock of the above thoroughly air dried. Complete line and high grades. Prompt shipments on mixed cars.

Best Quality Uniform Grades Low Prices

GET OUR QUOTATIONS BEFORE BUYING

Detroit - - Mich.

Hardwoods for Quick Sale

We want to move the following stock quickly:

4/4 and 5/4 No. 2 Common and Better Basswood; 4/4 No. 2 Common and Better Brown Ash; 4/4 and 5/4 No. 2 Common and Better Birch, strictly unselected for color; 4/4 and 5/4 No. 1 and 2 Common Flooring Maple; and 4/4, 5/4, 6/4, 8/4, 10/4, 12/4 and 16/4 Firsts and Seconds Maple. All stock dry and in shipping condition, and either car or cargo shipments.

W. H. White Company Boyne City Lumber Co.
Wholesale Yards at Buffalo, N.Y.
Mills at Boyne City, Michigan

Manufacturers of Foreign and Domestic Hardwood Lumber and Veneers.

Ohio Veneer Company

—— Importers of ——

MAHOGANY AND FOREIGN WOODS

Office and Mills: 2624 to 2634 Colerain Ave., CINCINNATI, OHIO.

R. A. Wells Lumber Co.

Wholesalers and Exporters of

Hardwood Lumber

of All Kinds

Special attention to Canadian trade. Prompt Shipments

Our speciality is 1" to 2" Gumwood, 1" to 2" Oak, both plain and quartered stock, 1" to 2" Ash and 1" Cottonwood.

WRITE US BEFORE BUYING

230 S. LA SALLE STREET - CHICAGO, ILL.

THE SOUTHERN LUMBER AND BOOM CO.

SALES OFFICE, CINCINNATI

Band Mills: Valleyview, Ky., Glendora, Miss.

Manufacturers

OAK GUM
POPLAR CHESTNUT
ASH CYPRESS

If You Need a Lumber Salesman

a classified advertisement in the **Canada Lumberman and Woodworker** will find one for you.

If You are a Capable Man

no matter how small or how big your present position may be, an advertisement in **this paper** will put you in touch with every existing possibility.
The rates are most reasonable, write us.

Canada Lumber and Woodworker - Toronto

Duhlmeier Brothers Manufacturers Hardwood Lumber

MILLS { Kentucky, Tennessee, Mississippi.

Main Office and Yards { **CINCINNATI, OHIO**

We now have in stock dry and ready for prompt shipment 500,000 ft. of 1-in., 1¼-in., 1 1/2 and 2-in. plain Red Oak, nice soft texture, good widths, good lengths. Also a nice stock of Red and Sap Gum, Plain and Quartered Cut Oak. Let us quote you delivered prices.

OUR LUMBER IS MANUFACTURED RIGHT AND GRADED RIGHT. WE CAN SHIP QUICK.

Eastern Representative **James H. Walsh,** 95 W. Mohawk St., Buffalo, N. Y.

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

Long-Knight Lumber Co.

Manufacturers Indiana and Southern

Hardwoods

OAK, ASH, CYPRESS Our Specialties

Address all inquiries to the Main Office at—

INDIANAPOLIS, INDIANA

Theo. Fathauer W. M. Hopkins

Theo. Fathauer Co.

WHOLESALE HARDWOOD LUMBER

Our Specialties

Plain and Quartered White Oak. **Figured and Plain Red Gum**

Southern Yard - **Helena, Ark.**

Address correspondence to

1428 Cherry Ave., Chicago

Choice Hardwood for Quick Sale

We have the following high grade hardwood for prompt shipment :

Our Specialty — Anything in Hickory Lumber

1 car 1½" No. 1 Common Hickory.
1 car 1½" No. 2 Common Hickory.
1 car 1" No. 1 Common Poplar.
1 car 3" No. 1 ommon and Better Plain Oak.
1 car 1" x 3" Clear Quartered White Oak Strips.
1 car 1" x 3½" Clear Quartered White Oak Strips.
1 car 1" x 4" and 4½" Clear Quartered White Oak Strips.
1 car 1¼" x 4" to 5¼" Clear Quartered White Oak Stripes.
1 car 1½" 1st and 2nds Quartered White Oak.
2 cars 1" No. 2 Common Quartered White Oak.
1 car ¾" No. 1 Common Quartered White Oak.

Indiana Quartered Oak Ash Basswood Poplar

S. P. Coppock & Sons Lumber Co.

Main Office, FORT WAYNE, IND.

Yards: Orleans, Ind., Fort Wayne, Ind., Paoli, Ind.

Canadian Representative: Mr. S. D. Smith.

W. M. Ritter Lumber Co.

MANUFACTURERS

Columbus : : Ohio

Band-sawed West Virginia Soft Yellow Poplar, Basswood, Chestnut, Red and White Oak, all grades and thicknesses in stock, dry.

No Mixed Grades

We ship the product of our own mills only which produce annually over 100,000,000 ft.

Send us your inquiries direct or communicate with our Ontario Representative

John Hall, 314 Crawford St., Toronto, Can.

Phone College No. 2689

W. O. King & Co.

HARDWOOD LUMBER

Our Specialties

Michigan Hard Maple, Birch and Basswood

2452 S. Loomis St., CHICAGO, ILL.

DRY BEECH

We want to move 200,000 feet 5/4—No. 1 and better dry Beech. A Snap at the Price.

Also quick deliveries on NORTHERN HARDWOODS, YELLOW PINE, OAK DIMENSION, FIR, HICKORY, OAK, CAR STOCK and PILING.

Estabrook Skeele Lumber Co.

Manufacturers and Wholesalers

CHICAGO, ILL., U. S. A.

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

Phone Main 6386

Mills: Knoxville, Tenn.
Walland, Tenn.
Franklin, Va.

The Atlantic Lumber Co.

Incorporated

Head Office: BOSTON, MASS.

Manufacturers Southern Hardwood Lumber

Canadian Branch
211 Kent Building, 156 Yonge Street, Toronto
Robert Vestal, Manager

ANYTHING IN OAK LUMBER

We have the following stock we are anxious to move, let us quote you on it:

250,000 ft. 1 in. No. 2 Com. and Btr. Basswood
1,000,000 ft. 1 in. No. 2 " " Hard Maple
40,000 ft. 1 x 4 in. 1 face and 2 faces Clear Birch Strips
50,000 ft. 2 in. 1sts and 2nds Unselected Birch
400,000 ft. 1 in. No. 1 Com. Unselected Birch
50,000 ft. 1 in. No. 2 Com. Unselected Birch
100,000 ft. 1 in., 10 and 12 ft. Moulding Birch

Other Northern Hardwoods in complete assortments

BRADLEY TIMBER & RAILWAY SUPPLY CO.
Second Floor Palladio Bldg., DULUTH, MINN.

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

Wistar Underhill & Nixon

Real Estate Trust Bldg., Philadelphia, Pa.
Canadian Rep. - W. J. Anderson, 288 South St., London, Ont.

Pearl City Veneer Company

Manufacturers of

Veneers and Panels

IN ALL NATIVE WOODS

We have for quick shipment Three Ply End Panels, Drawer Bottoms, and Glass-backs

Our shipping facilities for Canadian Trade unequalled.
Enquiries solicited and quotations promptly given.

Factory and Office, Steele St., JAMESTOWN, N.Y.

Y NOT

buy your Hardwoods direct from

THE MANUFACTURER

Can Furnish Anything In---

Kentucky's Best

Quartered White Oak
Quartered Red Oak
Plain White Oak
Plain Red Oak
Poplar
Walnut
Hickory
Ash

Mixed cars furnished at same prices as straight cars.

J. V. STIMSON & CO.,

OWENSBORO, Kentucky

Yellow Poplar

Manufacturers of Band Sawed
Poplar, Quartered Oak, Plain Oak, Chestnut, Basswood

SPECIALTY:
Quarter Sawed White Oak

COAL GROVE, Ohio, U.S.A.

Lumber Co.

ESTABLISHED 1870

G. A. Grier & Sons, Limited, 1112 Notre Dame West, Montreal, P. Q.

MANUFACTURERS AND WHOLESALE DEALERS IN

Sawn Lumber, Softwoods and Hardwoods, Dimension Timber

Dimension Timber in Stock at Montreal for Prompt Shipment

Mills at Lachute, P. Q.

Manufacturers Birch Flooring

The Young Company, Limited

Wholesale Grocers

Lumbermen's Supplies

Complete Stocks

Prompt Shipments Liberal Treatment

Warehouses at:

Sudbury North Bay Toronto

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

CORRESPONDENCE SOLICITED

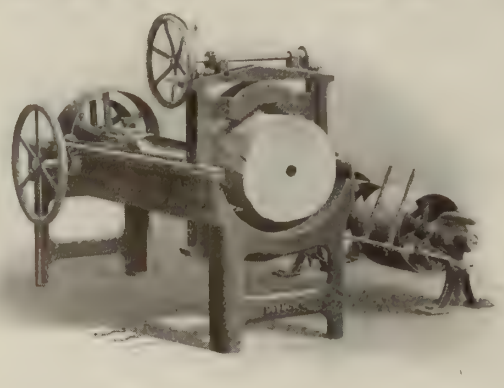
Mills at:

St. Pacome, Que., Canada

On I. C. Ry. 75 Miles East of Quebec City

THE GREATEST FEATURE about the

" DEFIANCE " WOOD-WORKING MACHINES



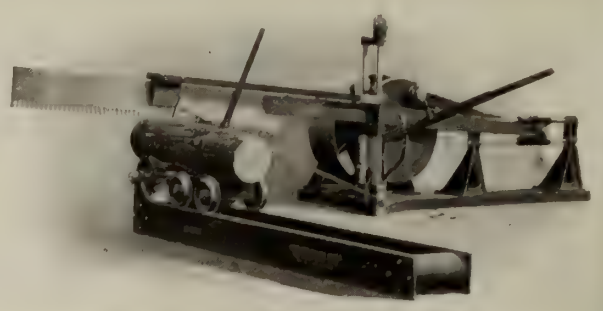
No. 1 Heavy Hub Boring Machine

Is the unequalled regularity with which they perform their work, which has given them their supremacy.

Of course, there is nothing new about that, for uniformity has characterized DEFIANCE machines since 1857.

The newness of our tools is in the general design, and the improvements we are making on them daily are really astonishing, to say the very least.

Always use Defiance Machines for Defiance Results



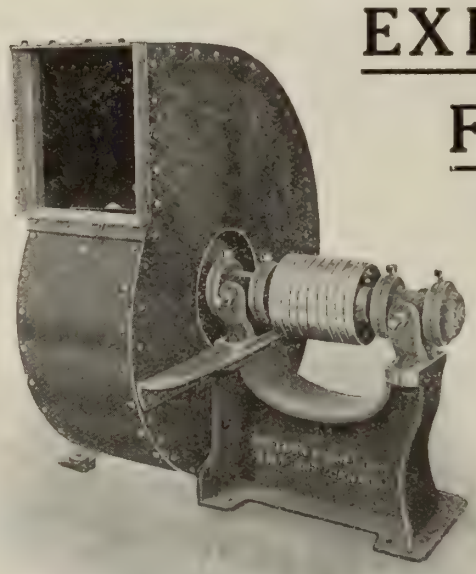
No. 1 Improved Drag Sawing Machine

There's a reason for it and their users will tell you so. Educate yourself with one of our catalogues and then write us for prices.

DEFIANCE MACHINE WORKS, 426, Perry St., Defiance, Ohio, U.S.A.

Representatives:—A. R. Williams Machinery Co., Toronto, (Ontario) St. John, N.B., (New Brunswick), Winnipeg, (Manitoba), Vancouver, (British Columbia), Reid-Newfoundland Co., St. John, (Newfoundland), Williams & Wilson, Montreal, (Quebec), W. L. Blake Co., Portland, Me., (Maine, New Hampshire and Vermont).

SHELDON SHAVING EXHAUST FANS



Specify our Blower and Exhaust Fans and you will not be disappointed. Saving in power and speed of 25% to 40%.

Send for Catalogue

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

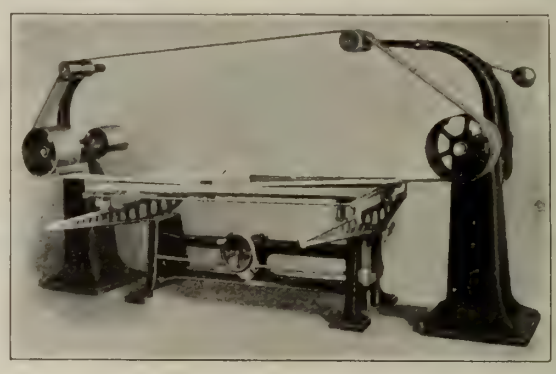
Agents

Ross & Greig, 412 St. James St. Montreal

Robert Hamilton & Co., Bank of Ottawa Bldg. Vancouver

INTERIOR FINISH AND MILL WORK SHOPS

Here is a Sander built for YOU



NO. 131 BELT SANDER

It produces a better and more uniform finish on all kinds of interior trim **at a cost that is down to a manufacturing basis.**

It is made to handle the endless variety of work that comes up in your line—irregular shapes, frames, doors, etc., as well as flat work, and can be expanded to finish any length of stock up to 20 feet or more.

Of a generous capacity and convenient in operation, it is very easily and quickly adjusted to economically care for frequent changes in sizes and shapes of work—a necessity in your business.

Without a skilled operator, it puts on the " finishing touches " usually given by hand, and it never gets out of order.

Write for our special No. 131 Circular and liberal terms

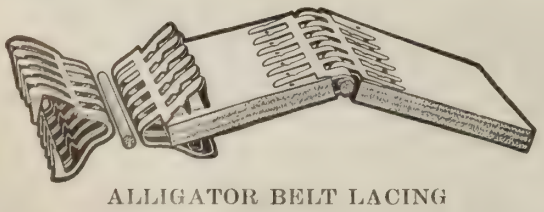
C. Mattison Machine Works

887 Fifth Street, BELOIT, Wisconsin

"LIMESTONE" Wood Split Pulleys

The Strongest Wood Pulley Made. NAILED and GLUED

We carry the largest stock of Wood Pulleys in the Country.



ALLIGATOR BELT LACING

Also Lukenheimer Valves, Lubricating Oils and Greases, Packings, Hose, Paints, etc.

Rush Orders Promptly Filled. **Belting in Stock 1-in. to 20-in.**

LARGE BELTS A SPECIALTY

Crescent Oil Co., Hamilton, Ontario

LOGGING TOOLS

Soo Line Logging Tools—The Favorite of the Practical Lumberman

Write us your requirements

Canadian Logging Tool Company

SAULT STE. MARIE, ONTARIO

A Belt which Conveys ALL the Power

Practical men know the drainage of power from a slipping belt, ***and because they know,*** they are buying

GOODYEAR RUBBER BELTING

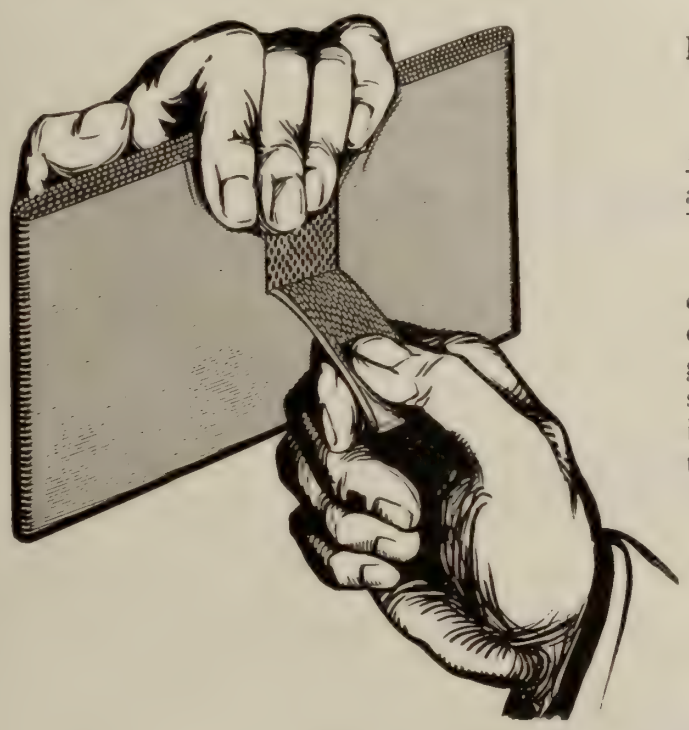
Which Neither Slips Nor Stretches

It is built up, layer upon layer, of close-woven, long-fibre, cotton fabric, rubberized and cured under Goodyear processes. And every Goodyear belt has in it the lowest possible minimum of stretch, because the belt is "cured" whilst stretched to the limit of safety in a special machine.

That is the Goodyear Method of Belt Manufacture

And the result is entirely satisfactory to belt users—a fact to which our enormously increased sales testify. What is the significance of this CONTINUED SALES INCREASE — 50% over last year? Simply that Goodyear Belting more than fulfills the claims made for it by the Goodyear people—who know what a belt should do, and make a belt to do it.

It has cost us less than $200.00 for claims or adjustment of every kind in connection with our total output for the past two years—a remarkable tribute to Goodyear reliability.



Look into the Belt for Yourself—Try to Tear It Apart.

Make a cut in the top layer—and then try to pull it apart. You will get a faint idea of its strength.

That is the result of forcing rubber at tremendous pressure through the fine cotton fabric—separating every strand—thus abolishing all internal friction or grinding. Whilst these layers of fabric are afterwards so compressed as to be almost homogeneous, the finished belt bends easily, the "duck" being so woven as to retain complete pliability in the finished belt.

For Main Drives and High Speed Pulleys GOODYEAR Belting is the Best

It has all the tensile strength necessary to absorb tremendous strain without slip, stretch or rent. The grip of rubber and the prodigious strength of hard-twist cotton fabric are united, and prove equal to every emergency.

Where the power transmitted is high, and great tensile strength is essential, Goodyear Rubber Belting proves its worth.

EVERY GOODYEAR BELT IS SUBJECTED TO A STRINGENT TEST BEFORE LEAVING THE FACTORY, and what is more, the materials used in the manufacture are also tested in the Goodyear laboratory before using.

IF YOU USE A BELT AT ALL IT WILL PAY YOU TO USE A GOODYEAR

Loss of power is loss of profit—and an inferior belt is dropping power all the time. Goodyear belting quickly earns its cost in power saved and trouble avoided.

TWO HUNDRED AND FORTY ROLLS—A TOTAL OF 72,000 FEET

We have just received an order for this quantity of GOODYEAR RUBBER BELTING from one business concern in the west, for the equipment of interior elevators. Such an order shows supreme confidence in the quality of GOODYEAR Belting.
If we have not just the belt you require we will make it for you.
In the choosing of belts our booklet would be of great assistance to you. We supply it free. Write to our nearest Branch for one.

THE GOODYEAR TIRE AND RUBBER COMPANY OF CANADA, LIMITED

FACTORY - BOWMANVILLE, Canada

BRANCHES: Victoria, B. C. Vancouver, B. C. Calgary, Alta. Regina, Sask. Winnipeg, Man. London, Ont. Hamilton, Ont. Toronto, Ont. Montreal, Que. St. John, N. B.

THE superiority of the "Crescent Ground" Cross-Cut Saw is due to our exclusive method of Manufacture and to the Simonds Steel of which these saws are made.

Simonds

"Crescent Ground"

Cross-Cut Saws

Several different styles of teeth.

Make cutting easier and faster.
Save time and labor.
Your hardware dealer can get this saw for you.

Every Saw Covered by an Absolute Guarantee

SIMONDS CANADA SAW CO., LIMITED

Montreal, Que. Vancouver, B. C. St. John, N. B.

SPRUCE, Car Shipment

1 x 4″ up	10/20′
2 x 2″	10/20′
1 x 4″	"
2 x 4″	"
2 x 6″	"
2 x 7″	"
2 x 8″	"
2 x 9″	"
2 x 10″	"
2 x 12″	"

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Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

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New Brunswick Pulpwood Problem

The act to prohibit the export of pulpwood cut from Crown lands in the province of New Brunswick which was recently put in force, has not entirely met with the approval of those who are engaged in the pulpwood business in New Brunswick. The general belief at the time of the passage of the act was that it would encourage the erection of pulp mills in New Brunswick, and in this way be a great benefit to the people of that province. That there are two sides to the question is forcibly illustrated by a letter which was recently written to the Editor of the Chatham Gazette by Mr. J. W. Brankley, manager of the Miramichi Lumber Company, at Chatham, N.B. Mr. Brankley is a man who has studied the lumbering industry in most of its branches and who has become a recognized authority upon many of its important questions. His views, therefore, are of much weight and readers of the Canada Lumberman will be interested in learning what he has to say upon this subject. We take pleasure, therefore, in reproducing Mr. Brankley's letter, as follows:

"I noticed an article in your paper a short time ago explaining the new Crown Lands Act which came into force on August 1st last, an act which is generally regarded by people of Chatham as one very much in the interests of this community. If you would permit me, I would like to point out one or two matters in connection with the pulpwood business which have so far escaped the attention of the people who speak about this matter. The new act, of course, prohibits the exportation of pulpwood from Crown lands, but leaves it free to be exported when cut from private lands.

"This possibly may be a good thing for the country which has the wood and the water power necessary for the operation of pulp mills, particularly ground wood pulp, but unfortunately this section of the province has no water power to speak of, with the exception of Grand Falls, and this power is in the remote northwestern section of the province.

"The Mirimichi Lumber Company of Chatham, of which I am general manager, in addition to its lumber and deal business also engages in the rossing of pulpwood. It may be well to enquire whether it is a wise provision or not to stop all further use of wood cut from Crown lands for this purpose. Now in the first place, a great deal of the wood that is used in rossing mills comes from the tops of trees that are cut for the saw mill and these tops when cut down to six inches at the top end are of no earthly use for the saw mill (for I have already bought from a prominent saw mill owner over a million feet of small logs that he stated he could not possibly use for his mill and would be a dead loss to him), but instead of leaving these tops of trees in the woods (as a great many saw mill men do because of the fact that it does not pay them to bring out such small timber and cut it up into deals or boards) we bring down all this small material and use it in the rossing mill. This material where the saw mill is concerned is lost to the province. The rossing mill, on the other hand, pays men to bring this small stuff out of the woods (only that which is cut from the tops of trees, for the Government will not tolerate cutting anything that will not give nine inches at the top end of a butt log), pays the government not only the regular timber stumpage fee, but an additional twenty per cent. because it is destined to be made into rossed wood for exportation; makes it a commodity on which a mill is kept running, employing over a hundred men day and night (as a recent article in your paper set forth) and keeps a line of steamers loading here during the entire season with an outlay per season of $35,000, for labor and pilotage. This amount you must admit is a very large sum to pay out during one season.

"Another point about the rossing mill business is this: there are in this province many sections that by reason of the nature of the land and climatic conditions are capable of producing only a stunted or undersized growth of timber. It can never reach any large growth and for this reason would never be utilized by anything but a rossing mill. In fact no saw mill could use it. This timber is made valuable where a rossing mill is located and it becomes as valuable to the province and the citizens of the province as any other timberland in that province.

"Now another point I make is this; that by accounts carefully kept and worked out there is twenty-five per cent. more money expended and labor employed on an acre of land for pulp logs that go to a rossing mill than on what saw logs can be got from that acre in particular.

"Thus you can see that the rossing mill not only utilizes timber that is othewise lost to the country but removes from the woods a very probable source of danger (that would be caused by fire) to the standing timber growing on these Crown lands and private lands.

"Now, Sir, I ask you if it would not be better for the government to encourage this kind of operation and the running of a rossing mill than to harass and attempt to destroy such an industry in the province and particularly on the North Shore where the number of industries is none too large at the present time. Should not some consideration be given to the men who have put money into this business as well as into any legitimate line of industry?

"I am constrained to make these few remarks by reason of the erroneous impression that I find prevails in many sections in regard to the value of the rossing mill business in this province and I trust that you will receive them in the spirit in which they are meant."

In connection with the above letter it is instructive to note what the government has to say upon this subject in the annual report of the Crown Land Department for 1912. Honorable J. K. Fleming, Surveyor General, in his report wrote as follows:

"As foreshadowed in the last report of this department, steps were taken at the last session of the Legislature to enact a law to prohibit the exportation of pulp wood cut from our Crown lands. In doing this we were following in the line of the provinces of Ontario and Quebec in preserving this class of wood with the object of manufacturing it into pulp within the boundaries of our own province. It was thought that out of fairness to those from the neigh-

boring Republic who had invested in properties of this kind, a certain time should elapse before placing the principles of the bill into operation, and accordingly it was decided that pulp wood should be prohibited from exportation on existing licenses on and after the first of August, 1912. While it is true our water powers are small in extent, in comparison to Ontario or Quebec, upon which depends so largely the successful manufacture of pulp, still it was felt that the enactment of such legislation would be an incentive to utilize such water powers as we have, thus affording employment to a large class of our own people in an industry derived solely from our natural resources. When it is considered that a cord of pulp wood loaded on the cars in this province is sold on an average of $5 a cord, the price of this same cord when manufactured into pulp would average at least treble that amount. To extend this argument further and manufacture this pulp into finer grades of paper, a huge industry would be the result. The prevailing opinion throughout the Dominion to-day is to preserve our natural resources, and so far as this province is concerned there is no question more vital to our interests than that which relates to the pulp wood industry.

"The most serious aspect of the pulp wood problem is not in the prohibition of its export, nor in regard to the difference of its value when manufactured into pulp or paper, but in the cutting down of our young forests which should be left to grow and mature and thus keep up our forest supply.

"There is no doubt that the price of pulpwood is a strong inducement for our wood land owners to ship the young growth and turn into money what is considered only idle capital; but such a decision in the end not only impoverishes the owner of the land but lays waste the forest growth, provides fuel for fires in the slashings made and injuriously affects the forest floor. We have much to learn from countries of the old land, Germany, France, Sweden, and even in our own mother country, in our forest management and the marketing of timber. Conditions in these countries are, of course, different from ours, but the same principles prevail as to forest cutting and the care of the forest from fires. In some of these countries a tree must be planted for every one cut down; the whole of the tree, even to its branches, is marketed, and large areas are annually set out with young trees in order to perpetuate the forest. The forest floor is cleared of all material of a combustible nature and such a degree of perfection is attained in fire ranging that damage from this source is reduced to a minimum. In Great Britain a great movement has commenced under government auspices to replant waste ground, and millions of pounds in money have been provided to carry out this project. In the United States the forest problem is now being grappled with as never before. Great national forests are set apart under the care of trained foresters. The era of the land grafter has gone, and the cry has gone over all that mighty land to preserve the forests for the present as well as for future generations, and to save what is left of ruthless devastation by the hand of man and the ravages of fire.

"Is it not then opportune for us to husband our forest resources, to pass wise laws to preserve them from destruction and to vote what moneys are sufficient to carry these laws into effect?"

The Economy of Artificial Drying of Lumber

The science of drying timber and lumber has made great strides of recent years and has of late been so thoroughly mastered, that it is possible to-day, in practically every case to avoid the former outlay which was necessary for seasoning timber in the open air before it could be used. It is just a question to-day, whether, even in all cases, it does not involve a loss to season timber or lumber by the natural process instead of using modern dry kilns. Aside altogether from any question as to the relative merits of the natural and the kiln-dried lumber, the question of cost is so serious as to make it necessary for all who have timber or lumber to sell to consider the pros and cons of the question closely. When there is no immediate hurry for making lumber dry, the question becomes solely one of expense. The cost of keeping timber or lumber away from the customer for a year and sometimes as much as four years, is a serious matter. It adds much to the first cost of the product as it keeps just so much money idle all the time and it requires additional expense in rents, taxes, etc., upon the ground which is used for storage space.

The manufacturer of lumber is necessarily involved in the outlay of large sums of money in his manufacturing processes. In most cases it is the best part of a year before a log which he has cut in the woods can be turned into lumber in his mills. In many cases it is as much as two years. During all this time his money is earning no profit for him. This expense has to be put into the cost of the finished product. When once the log has reached the mill it is necessary, therefore, to use every possible speed in transforming it into a product which can be disposed of for cash. If it is further necessary to wait for a year or perhaps four years until the product of the log can be sold to a customer, the amount of idle capital is greatly increased. Perhaps this capital should not be called idle as it is really performing the duty of permitting the transformation of the log into the article which the customer requires.

Nevertheless it is idle to all intents and purposes if it is being used in financing an old-fashioned method of manufacturing which could be supplanted by a modern method involving less expenditure in capital and time.

The Timber News, of London, England, in a recent issue, discussed this problem from the point of view of the hardwood manufacturer. Its remarks being as follows: "In business one of the factors of success is the facility with which capital can be used. When it is locked up in timber, plant, or other accessories to modern industry it must be charged for in determining the selling price of the article manufactured. When it is possible to lessen the amount of capital invested in the business, it enables the manufacturer to either have a larger profit or to reduce his prices for the manufactured article, the lessened price creating a greater trade and so in this way increasing the manufacturer's bank balance. Perhaps in no other industry is there such a large amount of capital locked up as there is in the hardwood trade. One has only to walk through the East End of London to see stocks of cut timber that must run into many thousands of pounds in each yard, tier after tier of valuable hardwood being air seasoned, not for a few months, but for years. All this must tell on the cost of the timber. Not only is there the charge of storing it, but at the very least five per cent. must be charged to give the merchant some return for his outlay. This over four years means twenty per cent. on the first cost of the timber, and when it is valuable hardwood, this is no small sum. Not only is there this extra cost upon the timber before it is realized in hard cash, there is also the locking up of a very large sum which could be used very advantageously in the business. But it may be asked: What is to be done, timber cannot be sent home half seasoned? We are well aware of the fact that it would not be pleasing to any manufacturer to receive green timber, when for special reasons he requires it bone dry. Then why not take advantage of a proper system of drying timber? Drying timber by artificial or mechanical means is no new thing, yet it is strange that far too great a number of timber merchants, and others requiring dry wood, will go on the same old way—pile the timber out in the smoke, and lock up an enormous capital in their stock, instead of installing a proper apparatus for drying timber.

"It is not as though timber-drying plants are new things. Numbers to-day are drying timber fresh from the sawn log, leaving it in such condition that it is fit even for the best cabinet work. Indeed, the whole case is on a par with the modern gas engine. Thirty or so years ago the gas engines then on the market were very unsatisfactory. It was almost a matter of chance whether they would go or stop. The reputation of that gas engine remained long after the engine had been modernized into the perfect machine of to-day. So with the drying kiln. Years ago, before the theory of drying timber was understood, any heat, anyhow, was applied to green wood. The results, it need not be said, were more or less disastrous. Half-baked wood is of little use for cabinet or other work requiring seasoned

wood. It was perhaps perfect wood when it went into the drying stove; when it came out a boa constrictor would look straight to some of it. Cracks and other defects would show; indeed, the valuable wood would be spoilt for all practical purposes. These results were talked about, and the general impression grew that it was impossible to dry wood by mechanical means. Such impressions, today, are entirely wrong. Modern drying apparatus dries wood equal to four years' open-air seasoning."

Why is Grading Problem Neglected?

The absence of any definite grading rules for hardwood lumber in the province of Quebec, has always been a source of wonder to those in the trade who give the matter sufficient study to appreciate the great inconvenience and serious loss which it involves. The Canada Lumberman has frequently endeavored to stir up those who are in a position of influence in the lumber trade to introduce reforms in connection with the grading of lumber, which would bring a certain amount of order out of the present ridiculous situation existing in so many parts of the Dominion. The hardwood situation in Quebec is not by any means alone in its peculiarity. It is in fact only one instance of the inexcusable neglect which has permitted the lumbering industry in Canada to develop along lines totally at variance with modern business principles. In Ontario likewise, there is practically nothing in the way of systematic grading or inspection of the chief classes of lumber produced by the mills of that province. The same applies to the soft woods of Quebec as well as the hardwoods and also to the lumber products of the Maritime Provinces. When we come to western Canada the situation is more promising. In fact the people of British Columbia and the prairie provinces have succeeded in bringing about a systematic division of their lumber products into practical grades, in such a way as to greatly simplify the business of handling lumber. The British Columbia Lumber and Shingle Manufacturers, Limited, and the Mountain Lumber Manufacturers Association, have adopted excellent systems of grading lumber which have been used with success by practically all who are engaged in the trade in those parts of Canada.

Under the above conditions it is all the more strange that eastern Canada has not been able to throw off the incubus of old-fashioned methods and to follow in the steps of those who have kept up with the march of progress. In the United States as well as in western Canada, grading rules have been very largely adopted. The two large hardwood associations in the United States are notable examples, and so successful have they been that one of them, the National Hardwood Lumber Association have found it both necessary and profitable to invade Canada. This invasion is of a decidedly peaceful and beneficial nature and if they can establish their grading rules in connection with the hardwoods of eastern Canada they will perform a service for which they will deserve the thanks of the whole hardwood industry of this country.

There are many in the lumber industry who disapprove of any proposal to bring about a systematic and uniform grading of lumber products. What their reasons can be it is hard for others to appreciate. Practically the only reason given, is that local markets require different grading, and also, that an old established firm, having developed its own system of grading, would be at a serious loss if it were to be obliged to change its system in order to fall in line with a uniform one. We do not believe that this latter reason can be taken seriously by those who put it forward or by any others in the trade. As to the former reason, we believe, upon the testimony of many prominent and successful lumbermen, that the varieties in grades required by the local markets are not by any means so important as some people have been lead to believe. It is not essential moreover, that cast-iron grading rules should be drawn up to apply to every market. The urgent necessity is for preparing some definite, and at the same time broad, definitions in regard to the chief terms used in describing lumber of various qualities, which will enable the buyer and the seller to understand intelligently just what kind of a product he is talking about with his customer.

It should not be possible for instance at this late date in the history of the lumber industry to sell a man a shipment of firsts and seconds and to deliver him first, seconds and No. 1 common in the confident expectation of putting the deal through. Nevertheless this is just what is done in a great many cases and it almost seems as though many dealers base their whole business system upon the principle of delivering a lower quality than they contract to sell. Every lumberman understands this situation pretty thoroughly, and many of them in conversation will admit that they would like to see a big reform brought about, but when it comes to inaugurating a reform there are few who will take up the work and many who will seek to prevent it.

Elsewhere in this issue will be found a brief letter from a lumberman of Montreal, a lumberman whose standing and reputation are high among his fellows in the trade. He puts the matter briefly and forcibly. We hope to have his views at a later date in detail to present to our readers. In the meantime we would appreciate it greatly, and we believe the trade would benefit considerably, if others who have its interests similarly at heart would contribute their views for publication. We would at the same time respectfully request them to discuss practical methods for bringing about a better state of affairs.

Editorial Short Lengths for Busy Readers

There were 13,683,770 cross-ties purchased in Canada in 1911, according to statistics compiled by the Forestry Branch of the Department of the Interior.

This is an increase of 4,469,808 (48.5 per cent.) over the number purchased in 1910. The increase is largely due to railway construction.

Eighteen kinds of wood were used, jack pine standing first in importance, numerically, with about 40 per cent. of the total. Tamarack stood second with almost 19 per cent. and Douglas fir with 14 per cent. and hemlock with 12 per cent. occupied third and fourth places respectively.

The average price of ties in 1911 was 39 cents, one cent more than in 1910. Southern pine ties at $1.10 imported from the United States were the most expensive, and spruce ties at 26 cents were the cheapest. The sawn tie is increasing in favor, evidently, as 70 per cent., or 3 per cent more than in 1910, were the product of the mill. Sawn ties cost, on the average, 41 cents a piece, or 4 cents more than hewn ties.

Only 206,209 ties, or 1.5 per cent. of the total number purchased were given preservative treatment. However, this is practically a clear advance over 1910. Two treating establishments are now in operation. On the average, the treatment of ties prolongs their life by ten years. It is estimated that at least 350 million feet, board measure, could be saved annually through this process.

The value of capital invested in timber and lumber and their re-manufactures in Canada at the time of the taking of the census for the year 1910 was $259,889,715. Ten years previously the figures were $89,959,336, and for the year 1890 they were $74,263,668. These figures show the following increases: From 1890 to 1900, 21.13 per cent.; from 1900 to 1910, 188.90 per cent.; from 1890 to 1910, 263.49 per cent. During 1910 the amount paid in salaries and wages totalled $46,035,618. In 1900 the total was $23,473,558, and in 1890, $18,658,719. The increases during these years were as follows: From 1890 to 1900, 25.80 per cent.; from 1900 to 1910, 96.12 per cent.; from 1890 to 1910, 146.72 per cent.

New Brunswick Timberland Situation

Conditions Which Make the Preparation of a New Forest Policy Urgent and Difficult — Stumpage Dues, Fake Settlement and Pulpwood Export

That the province of New Brunswick has a difficult and at the same time, a most important problem to solve to-day in connection with working out an effective and successful forest policy is realized by all the people of that province who have given the matter their attention. It is late in the day for an eastern province to take up such a question but it is possible nevertheless to work out a policy which will result in saving the forests as a revenue producing asset for all time to come. The government—as pointed out in the Canada Lumberman of October 1st—is now giving the subject its attention and is expected to announce during the next session of the legislature, either the policy in detail or the main principles upon which it will be based. Under these conditions the Canada Lumberman has considered it advisable to secure the views of men prominently connected with the lumbering industry of the province, whose experience justifies them in expressing their opinions.

The article published in the Canada Lumberman of October 1st discussed the problem in a general manner, referring to conditions which have led up to the present timberland situation and giving the suggestions of a prominent timberland owner in the direction of reform. The remedies which he suggested were briefly as follows:—

1st.—Making a complete survey and estimate of the forest areas of the province.

2nd.—Basing stumpage rates upon the cost of logs delivered at the mill.

3rd.—Encouraging the thinning process in connection with spruce forests by permitting pulpwood cut from Crown lands to be exported.

4th.—Confining settlements strictly to agricultural lands, so as to prevent fradulent settlement carried on only to secure the timber, after which the land is abandoned.

5th.—Revising the taxation of wild lands, either (a) by removing the taxation or (b) making it nominal during the long period when forests are not being cut, or (c) charging only for the crop as it is gathered at a fair rate.

6th.—Placing the Crown lands under the management of a non-partisan commission, so as to remove them entirely out of politics and ensure their being managed from the point of view both of conservation for the future and receiving the largest practical annual revenue.

With the exception possibly, of the suggestion that the government permit the export of pulpwood, these proposed remedies will meet with general approval and there are many in the province to-day, who will agree also that the restriction of the export of pulpwood is not altogether a blessing. The above suggested remedies are not to put forward as a detailed solution of the problem. They are necessarily only general but they are presented in the belief that along some such lines the government will be able to work out solutions to the many difficult features of the situation, which will be both practical and satisfactory to the lumbering interests of the province and to the people themselves.

Forest Areas Should Be Explored

In regard to the first recommendation, everyone realizes that it is essential to the future prosperity of the province of New Brunswick that its forest areas should be completely explored, surveyed and mapped, and that at the same time all possible information should be secured regarding the rates of growth. It is difficult for the uninitiated to understand why this has not been done. It is one of those unexplainable things which result from the natural development of conditions, unregulated by attention from any one who takes sufficient interest in the situation to prevent the great waste incident to operations which are not guided by care for the interests of posterity in the natural resources of the country. The government of the province of New Brunswick to-day has a great opportunity at hand. It has in its power to make a name for itself as one of the most capable governments that the province ever had; if it will give the new forest policy sufficient study to ensure that the forests will be placed upon a permanently paying basis. It may be thought an easy matter for a publication to criticize, while at the same time, failing to offer valuable suggestions for those who are in charge of the affairs of the country. However, we take it that the duty of the press of the country is to point the way and that whenever criticism is necessary or advisable, it is not essential that the press should decide the details of reform. In the present case indeed, we realize fully that no publication could hope to grapple in a capable manner with such a situation as that in New Brunswick to-day, or even to offer suggestions which would be certain of success.

The second reform suggested in the article brings up the main problem of securing, for the people of the province, a fair share of its resources and at the same time encouraging the development of the lumbering industry. Whatever system of stumpage dues is decided upon by the government the dues themselves must be based upon these two principles, viz., the owners of capital invested in the lumbering industry, and the people of the province as a whole are each entitled to share in the country's natural wealth; the one in proportion to the capital and labor devoted to the industry and the other to such an extent as will give them a safe and fair revenue. The only proper policy will be one which will work out fairly to both interests.

Fortunately it has been demonstrated in other parts of the world and is being shown in a notable manner in British Columbia to-day that the interests of the public and the interests of the lumberman are to a large extent identical. It should be a simple matter for those who are acquainted with the essential facts to draw up a list of stumpage dues which would accord reasonably well with the profits secured by lumbermen in cutting the logs, while providing a good revenue for the province.

Lumber operating conditions have changed greatly of late years. The most important alteration being the great increase which has taken place in the cost of labor and supplies. At the same time, each year has witnessed the carrying of logging operations farther into the most inaccessible parts of the country so that it costs proportionately more in labor to get out a log to-day than it did in the early days when the timber was more accessible. These conditions are all understood by those who are engaged or interested in lumbering and should be given careful consideration in drawing up any new set of stumpage dues.

The fourth suggestion made was that the present settling laws should be revised. Everyone who knows anything about lumbering knows the importance of this matter. Stealing timber under pretence of settlement has been a popular method of making money in Canada for many years and New Brunswick has had its share of the fake settler. With the experience of the past it should not be difficult for the government if they wish to prevent this injustice to the lumbermen and to the people of the province, to enact a measure which would reduce this evil to a minimum. The principal thing necessary is that the government should be in earnest in its intention to prevent fake settlement, however, seriously the government may intend to stop this business it will always be handicapped by political considerations and for this reason the wisdom of revising the settling laws becomes evident.

The sixth suggestion in the article referred to was that the crown lands should be placed under the management of a non-partisan commission. If this were done it would be possible to put an end to fake settlement and at the same time it would simplify the problem of forest conservation.

The Export of Pulpwood

Probably the most important feature of the forest policy of the government of New Brunswick to-day is the regulation which requires all pulp wood cut in the province from crown lands to be manufactured within the province. In other words, spruce cut from crown lands cannot be exported in the rough, but must be further manufactured, i.e., turned into pulp or paper. Spruce cut on privately owned lands is not subject to this restriction. The writer whose views were set forth in the Canada Lumberman of October 1st, in a further letter presents in a forcible manner the argument against this restriction. "New Brunswick," he says, "has but little water power in that portion of the province sloping toward the St. Lawrence which contains a very large portion of the crown lands. On account of this lack of water power it is particularly important to develop the pulp industry in this province. Secondly the pulp wood from this eastern slope must eventually either go to waste, or to be largely shipped either to the States or to some other provinces where they have abundance of water power. The most practical advisers that I have found so far," he continues, "have been among the pulp wood men. They have so much money invested in mill plants that it is necessary to guard a long future, and therefore, they have been giving the subject practical consideration for a considerable number of years, realizing that deforesting or wasteful

methods of cutting meant a rapid depreciation of their plants, which perhaps have cost millions.

"The building of so many pulp mills in the state of Maine would at first thought give the impression that it would only be a few years before the forests would be exhausted—while as a matter of fact the improved methods of cutting and the saving of so much wood that heretofore has gone to waste, warrant me in asserting that if all the forests of Maine were available to the different mills, the growth would supply the entire demand for an indefinite period. That some of these mills go to Canada for a considerable supply of wood rather than obtain it in the State of Maine, is not because the supply is exhausted, but because they can obtain it more cheaply on account of railroad connection than they can obtain it from northern Maine. If you will glance at the map you will note that the Allegash and the St. John Rivers, with their northern branches, drain a considerable portion of the forest area of that state and in order to make any of the wood from this large area available to Maine mills it would be necessary to float to some gathering point on the St. John River adjacent to some railroad whence the logs would be shipped to the mills by cars. No such gathering point can be found nearer than the extreme northern border (say between Fort Kent and St. Francis) and the cost of cutting this wood together with stumpage, floating it to St. Francis and then shipping it back to the mills by cars has thus far been greater than to take the wood from Canada. As a result, not a single pulp wood log of any kind, shape or description has thus far been taken from this area and used for making pulp and paper."

The point which the writer desires to make in the above letter is that the restriction of the export of pulpwood from New Brunswick crown lands will not bring about an extensive increase in the manufacture of pulp and paper in the province of New Brunswick. If these facts are correct it becomes likely on the other hand that the pulp manufacturers of the State of Maine will be obliged to operate in the pulp wood areas of their own state which have not been cut as yet and that the owners of standing pulp wood in the province of New Brunswick will not only lose their good market but will be unable to thin out their own timber in such a manner as to bring about a good annual growth.

Conditions Rapidly Changing

The same writer dealing with the question of the growth of spruce in New Brunswick says, "Spruce in this north-western region is our best forest product and the species of tree that appeals to the average timber land owner. as the one requiring the most study. In the olden times nothing but the largest and best of this species of wood was regarded as merchantable, the large tracts having a small growth being regarded almost as waste land. The advent of the paper mill has demonstrated that where available these large tracts of undersize growth, formerly regarded as waste land, have large commercial value and the forest owner after considering the matter from a financial standpoint naturally concludes that he does not care a picayune for the sentimental features of forestry; but is willing to sell his spruce beam pole size, or from 6, 10 and 12 in. or larger, as will yield him the best revenue through a series of years.

"Scientists tell us that spruce seeds will germinate and grow only in a mineral soil except in rare cases not worth considering. On the other hand fir seeds will germinate and grow as a general rule only in moss soil. The result is that in a thick growth particularly on land inclined to be mossy the spruce is supplanted by the fir for the reason above indicated.

"Query:—Cannot governments and individuals adopt some cheap method by which the mineral soil may be exposed in order to allow the spruce to germinate and thus do away with the preponderance of fir found on mossy soils—the fir being a much more desirable wood.

"Again, scientistc have determined that a spruce tree takes its food very largely from the air, the roots absorbing and bringing up only the necessary moisture together with what earthy matters are required to enable the tree to make rapid growth. Every spruce tree growing in a forest grows very slowly, indeed, until such time as the top gets up above the surrounding growth where it can get plenty of light and air, when it takes on wood and grows very rapidly. This demonstrates the fact that where a thinning process can be followed thus allowing more air and light to the tree, the amount of actual growth or new wood produced annually will be actually greater than it would be on the total stand without any thinning.

"This leads to a second problem namely: On forest territories where there is a good sprinkling of spruce seedlings, is it practical for the government or individual to adopt any policy by which, at a very modest cost, the undesirable tree growth that simply cumbers the ground, can be destroyed, either by girdling or some other cheap method of destruction, thus affording the spruce a chance to make very rapid growth instead of a very slow growth as under the natural process.

"By actual calculation it is found that spruce trees, either wholly or largely shaded, increase in volume less than 1 per cent. annually, while those more favorably situated, where light and air are abundant, will increase as much as 6 per cent. and sometimes even more. This suggests that the problem is worth considering, how we can best increase the volume of growth at the smallest possible cost, and whether or not this work can be made financially successful."

Encouraging Careful Operation

A great deal of misconception exists in the public mind about the operations of the lumberman. The ordinary citizen considers that when a tree is cut down it is simply destroyed and that so much of the forest is obliterated. He does not bear in mind the fact that lumbering operations are carried on upon scientific lines and that the removal of these in a closely growing forest enables those which remain to grow more rapidly and attain a much greater size than they could have otherwise. The Rev. Edward Everett Hale in an address once referred to this question in forcible language. It seemed to him like sacrilege that the noble pines, the handiwork of the Almighty, requiring His great power through a period of four hundred long years, should be destroyed by greedy man in a single day. To the average audience this sort of thing sounded alright. They did not bear in mind however, that "The greedy man" with his money invested in these noble forest pines was not anxious to destroy Nature's good looks. It so happened that those who were operating upon the land which the Rev. Edward Everett Hale referred to, astonished both him and his associates by causing so slight a blemish to the natural scenery by following the thinning process that they hardly knew that any cutting had been done, judging by the distant view, although a very large amount of timber had been removed.

It is becoming more and more apparent every day, in connection with timberlands in Canada, and particularly those in the eastern provinces, that it is necessary to regulate the timber cutting operations and carry them on under a plan in which the thinning process is one of the principal features. Two very dangerous extremes are to be guarded against. One of these is the complete dstruction of the forest. The other is its complete neglect, the latter would be as dangerous as the former. Between the two extremes lies the only sane policy of timberland exploitation for any country. Sentiment is a valuable factor in bringing the public to a proper appreciation of the value of its timber resources and of the necessity for protecting them against complete destruction either by fire or by the axe. In the preparation of a timberland policy however, there is little or no room for sentiment. Practical economics alone must be considered. Fortunately, it will be found that along the line of practical economics it is possible to foster the sentimental interest in our forest growth. Practical economics in connection with a timberland policy will involve stumpage dues regulated with careful consideration of the value of the product secured and the profits to be made, a system of tenure which will guarantee to the operator that he will not have to be worried by the fake settler and a system of cutting regulated by wise consideration of the maximum known annual growth and based upon the wisdom of destroying the useless forest growths or those which, when removed, will permit of more rapid development of the remaining stand.

Problems Peculiar to Spruce

Lumbering in the forests of New Brunswick is in some respects quite distinct from the operations in other parts of Canada. The preponderance of spruce makes it necessary for lumbermen to devote much of their time to the study of this tree. The various uses of the spruce tree complicate the problem considerably. If the spruce were used simply as a lumber, the questions involved would be largely those involved in other lumbering operations. Great quantities of spruce however, are used for pulpwood and it becomes necessary on this account to look at the situation from an entirely different point of view. A prominent operator in referring to this subject writes to the Canada Lumberman as follows:—"In estimating the stand of spruce, we estimate the total amount from the small pulpwood size to mature trees. The quantity it is practical to cut, or advisable to cut, varies very materially on large areas. For instance on some tracts 75 per cent. of the logs may be saw-mill size, while on other tracts, from 75 per cent. to 90 per cent. is only pulpwood size. In order to prepare for the future, it is necessary to take into consideration the character of the growth you are operating in when limiting the size to cut. In growth where the size is largely saw-mill logs, it is usually the case that the trees are somewhat scattered, and it seems advisable in such growth never to allow a single spruce tree to cut less than 14 in. in diameter, breast high, but where the growth is of smaller size, provided we can have a thinning process followed, so as to leave a goodly stand of undersized trees, sufficient perhaps to occupy the entire ground when they mature, it is wise to let them cut quite small. The trouble in such instances is to prevent what we might call stripping or mowing the ground. This means

cutting so clean on the territory that there is not sufficient stand left for the next crop."

An interesting method of guarding against undesirable cutting as outlined above, has been adopted in connection with some stands of timber in New Brunswick. The owner, having leased the land to others for operation, charges the same stumpage for the small trees as for the larger ones, but knowing that they are of much less value and that the operator cannot afford to pay this full price, and at the same time to guard against the ruinous cutting for the future, he tells the operators that he will give them anywhere from 1000 ft. to 2000 ft. at the price of 1000 ft., according to the perfection of their work. If the operator is careful to leave a sufficient stand for the next crop, and the ground is cut as it should be, the owner is perfectly willing to give him 2000 ft. for every one thousand that he pays for. If however, the operator is careless and indifferent in his cutting—stripping the timber in some places and leaving stumps in others—the owner gives him a less number of feet for a thousand feet. Thus, when the operator's work is all wrong, he is obliged to pay the full price for every thousand feet he cuts. Not much timber has been cut under this policy, but it is presumable that some such plan could be worked out in connection with the increasing demand for pulpwood and that it would provide an excellent incentive for careful and profitable work.

The Hardwoods a Distinct Problem

The hardwoods of New Brunswick present a series of difficult problems which are coming more and more to the front every day. As yet, hardwoods have been practically worthless in any territory in New Brunswick located more than six miles from a railroad and even on territory within the six mile limit, the demand has been restricted and the quantity cut has been small. The demand for hardwood however, is certain to increase constantly and to warrant the building of cheap railroads or the use of steam log haulers for a much greater distance. This process will eventually give value to hardwood timber which to-day is unsaleable. The use of native hardwoods in New Brunswick to-day is, comparatively speaking, limited and as a result only that portion of the tree is merchantable which is comparatively free from knots. When a sound tree is cut therefore, only that portion of the trunk below the large limb is of value, in many cases.

In the present article, and the one which preceded it in the issue of October 1st, no attempt has been made either to offer unpleasant criticism or to outline an infallible remedy for the unsatisfactory conditions of the present day. Our effort has been purely to present the views of some of those who have written us upon this subject and to pave the way for a general discussion of the subject on the part of those of our readers who may be sufficiently interested in the welfare of the lumbering industry of New Brunswick to send us their own views for publication. As already noted, we believe that the present is a critical time in connection with this matter and that the people of New Brunswick should not let it pass without doing their utmost to assist the government in bringing forth a forest policy which will be acceptable to all parties and which will encourage the development and the conservation of the forest wealth of the province. We hope to receive further letters upon this subject and to give them as much prominence as possible in our columns. We therefore, ask our readers to give the matter close study and to write to the editor of the Canada Lumberman, discussing the problems from their own point of view in as thorough a manner as possible, so that we may be able to have the discussion cover every aspect of the case.

C. P. R. Will Reforest Waste Lands

Mr. L. O. Armstrong, of the Colonization and Natural Resources Department, of the C.P.R. while on a visit to St. John, N.B., recently, outlined the plans of the C.P.R. for assisting in the work of colonization and reforesting in the province of New Brunswick. "The C.P.R.," he said, "has recently decided to give its attention to the problem of colonizing the districts in the four eastern provinces served by its lines, and to take up the work of reforesting lands unsuitable for farming and now unproductive because of the destruction of forest fires. The company has recognized the importance to it of the proper conservation of the of the natural resources of the country. A natural resources department has recently been organized and the company has recognized its importance to such an extent that it has agreed to place its financial resources behind it. Huge sums have been spent on irrigation and forestry in the west and now we propose to do something in Ontario, Quebec, New Brunswick and Nova Scotia.

"We will take up the matter of reforesting waste areas, if we can make arrangements with the municipalities to place a fixed and small tax upon such lands as we may acquire. If we are not held up for high prices we will buy any waste lands along our lines in New Brunswick and Nova Scotia, not suitable for farming, put the best foresters in the country in charge of them and start raising trees. The foresters will, of course, select trees best suited to each district, but our idea is to specialize in raising trees suitable for railway ties, and pulpwood. Our foresters will have instructions to cooperate with the Government officials in the work of preventing and fighting forest fires.

"The company feels that though the returns from the work of reforesting may be slow, it is worth its while to go into it and we believe the municipalities will agree to a taxation system that will permit us to go ahead, as there are many acres of land unfit for farming, where the forests have been burnt off and now no not bring the municipalities or anybody any returns."

Next Winter's St. John River Operations

Reports from Fredericton, N.B., state that the lumber cut on the upper St. John River for this season is estimated at 110,000,000 feet, over half of which will be manufactured at the mills at Van Buren and Grand Isle, above Grand Falls. It is expected that the total amount of logs rafted at the booms at Fredericton next season will be about the average. The following figures are reported as being close to the probable operations:

Stetson-Cutler Co., St. John, 20,000,000 feet made up as follows: 5,000,000 feet from Frank Currier of Seven Islands; 5,000,000 feet from W. J. Noble above Seven Islands, and 10,000,000 feet from W. H. Cunliffe's & Sons of Fort Kent, to be cut on the Allagash waters.

Randolph & Baker, St. John, 10,000,000 feet from Maine. John E. Dickey, St. Alexander, will cut 5,000,000 feet for Randolph & Baker on the Little Black River. Another operator will cut from 3,500,000 to 4,000,000 feet on the Green River and, James Hallett will cut 2,500,000 feet for them on the Quidisis.

Murray & Gregory, St. John, will have about 15,000,000 feet of Maine logs. John Kilburn, Fredericton, will take out over 10,000,000 feet for Murray & Gregory on the Big Black River and the head waters of the St. John. F. Chouinard, St. Pamphile, will take out 5,000,000 feet on the Big Black River for Murray & Gregory.

The St. John Lumber Co. will cut 40,000,000 feet of logs in Maine for its mills at Van Buren. Mr. John A. Morrison, Fredericton, will take out 11,000,000 feet on the Baker branch for the St. John Lumber Co. F. Chouinard will take out 10,000,000 feet on the north western branch of the St. John for the St. John Lumber Co.

Mr. C. E. Jones, St. Francis, will take out 2,000,000 feet on the St. John near the mouth of the St. Francis.

Robert F. Potts, Hartland, N.B., will take out 5,000,000 feet on the Big Black and Allagash Rivers. Jos. T. Michaud, Holton, will cut 6,000,000 feet on the Allagash.

S. W. Collins & Sons, Caribou, have taken a contract with the Van Buren Lumber Co. to furnish all the company's logs this winter. They will take out 16,000,000 feet on the Grand River in northern New Brunswick which will be transported by rail to St. Leonards.

The Grand Lake Lumber Co. whose plant is at Grand Isle, sixteen miles above Van Buren, will use about 8,000,000 feet of Canadian logs from Temiscouata Lake.

Lumber operations along the Miramichi River in New Brunswick during the coming winter will probably be considerably reduced on account of the high freight rates which still continue upon shipments of lumber to trans-Atlantic points.

Death of Richard A. Estey

Richard A. Estey, one of the best known lumbermen on the St. John river, died at Victoria Hospital, Fredericton, N.B., recently after a paralytic stroke. Mr. Estey was born in Fredericton 63 years ago and had lived there all his life, with the exception of about a year and a half which he spent recently in British Columbia. For over 30 years he was engaged in the milling business at Fredericton and also conducted lumbering operations on the St. John river and its tributaries, on an extensive scale. The late Mr. Estey was one of the oldest members of the Masonic order in Fredericton. He was a widower and is survived by one son, Frederick, in B. C., 2 daughters and 3 sisters.

A suit between Mr. John Lash and the Canada Shingle Co. was recently heard in the Supreme Court at Vancouver. According to an agreement with the plaintiff, the Canada Shingle Co. were given the right to cut cedar on plaintiff's limits at Sechelt, except where cedar was situated in blocks of fir. The plaintiff claims that the company has not kept this clause of the agreement and is suing for an injunction to restrain the company from cutting in what Mr. Lash terms his fir preserves. The amount involved is in the neighborhood of $10,000.

Judgment for the plaintiffs for $20,932.45 and costs was recently given by Mr. Justice Britton in the case of the Quebec Bank against the Sovereign bank, an action for the price of certain spruce delivered to the Imperial Mills, Ltd., during 1907 for which it was alleged that the defendants agreed to pay.

Belting Pioneer Called by Death

George Foster Cleveland, President of J. L. Goodhue & Co., Danville, Quebec, Closes Long and Successful Career

The Late G. F. Cleveland, Danville, P. Q.

The death occurred on October 7th, at Danville, Que., of Mr. George Foster Cleveland, a man who had been known for the past forty years as one of the most successful and at the same time genial and kindly business men in the province of Quebec. As a member of the firm of J. L. Goodhue & Co., Ltd., Mr. Cleveland had established a business reputation of the highest standard, with every one who had the good fortune to have business dealings with him. The late Mr. Cleveland was president of the firm of the J. L. Goodhue & Co., manufacturers of leather belting and lace leather.

Mr. Cleveland was born in Danville, sixty-one years ago being the son of the late Chester B. Cleveland, Jr. He was one of the first traders in the village of Danville, conducting a general store for a number of years in company with his brother, the late C. C. Cleveland. After he had obtained an excellent business education in this manner, he went upon the road as a traveller for Mr. Goodhue, handling leather belting. Subsequently he was taken into partnership and the firm became J. L. Goodhue & Co. Upon the death of Mr. Goodhue, Mr. G. F. Cleveland and Mr. C. C. Cleveland took over the business by purchase in 1883, still continuing under the former name. In 1910 the business was incorporated and since then it has made wonderful progress, its belting being known from one side of Canada to the other.

The late Mr. Cleveland always took an active interest in municipal affairs. He was a councillor of the village of Danville, continuously from January 1895 to December 1903, and was elected again and held office from January 1907 until 1909. He was mayor of Danville for the year 1901 and pro-mayor during 1908 and 1909. He also took an active part in church matters and for a number of years was warden of St. Augustine's church.

The late Mr. Cleveland leaves a widow and two daughters. The funeral took place on Wednesday, October 9th, and was attended by a great number of friends of the deceased.

Prolonging Life of Crossties

The United States Department of Agriculture has issued a bulletin on "Prolonging the Life of Crossties," in the course of which it says:

The removal of bark hastens seasoning and permits uniform drying. Where an oil like creosote is used as a preservative the presence of bark on the ties may result in such erratic penetration and absorption as to make the efficiency of the preservative practically zero.

Ties peeled in summer sometimes dry too rapidly and so case-harden, which increases the difficulty of securing penetration of the preservative. The best time to peel ties, however, is an economic question which must be determined for each particular case. As a general rule, it is good practice to remove the bark as soon as possible after the ties are cut, and regulate the rate of seasoning by methods of piling. In this way, peeling will be easier, there will be less danger from insects, and seasoning will be more rapid.

Of the three common methods of seasoning; namely, by air, by steam, and by oil, the first is best, if conditions will permit its use. Often, however, a treating plant is called upon to fill a rush order when its stock on hand is insufficiently seasoned for treatment, or the plant may be so located that it can not keep a large stock of air-seasoned material on hand. In such cases artificial seasoning must be practiced.

Seasoning by steam is not as common as it was a decade ago. Perhaps the chief reason for this is the better knewledge that now exists as to the cause of decay and the effect of steaming on the strength of wood. While steam seasoning increases the weight of ties and necessitates the drawing of a vacuum to get the sap and water out of them, seasoning in oil produces the opposite effect, and no vacuum is required. Tests made on 2 by 2 inch by 24 inch specimens showed that this method of drying is likely to cause internal checking.

Progress of the National Hardwood Lumber Association

The National Hardwood Lumber Association whose rules for the grading of hardwood have been very generally adopted by the trade of Ontario and also to a large extent to the trade of Quebec province, have issued a new directory for buyers and sellers. The directory contains a list of members of the association. For this reason it is a practical and most useful list of individuals, firms and corporations engaged in the manufacture and wholesale distribution of hardwood lumber. The present membership comprises eight hundred hardwood manufacturers and wholesale dealers. The increase in membership of late years has been remarkable. During the last fiscal year, one hundred and eighty-five applications for membership were received and one hundred and seventy-two were passed and admitted. The inspection department issued its official certificate for 132,844,156 feet of lumber which had been inspected by members of its staff during the year. It is expected that the total for the present year will be nearly 200,000,000 feet.

The Canadian hardwood trade will be especially interested in the latest issue of the directory because it shows that the association is making a decided effort to secure members in Canada. Recently Mr. Frank F. Fish, secretary of the association visited Toronto and the result is that the new directory contains the names of no less than fourteen members in Toronto. It also includes one member from Montreal and one from Meaford, Ont. The address of the association is McCormick Building, Chicago, and those who wish to avail themselves of its valuable services should write to the secretary, Mr. Frank F. Fish.

The National Hardwood Lumber Association report that during the month of September 1912 their inspection bureau broke all records by inspecting 20,639,850 feet. The previous high record had been in August of the present year which was behind September by 2,598,298 feet. It is interesting to note that among the salary inspectors of the association Mr. J. J. Miller, who was recently appointer inspector at Toronto, stands second in the list with 495,237 feet, the first place being secured by W. E. Robinson, St. Louis, Mo., with 640,864 feet.

Lack of Grading Rules Demoralizes Trade

Montreal, Que., October 17th, 1912.

Editor Canada Lumberman:—

The selling and buying of hardwood here is conducted with little or no system. Our best hardwoods come from the United States, where you can have guaranteed grading, and they should be sold here by such grading, but there is no supervisor of grading here, and it is, in many cases, doctored up to suit the price the customer wants to pay. He may think he is getting 1sts and 2nds cheaper than a "straight" dealer will or can offer, but as a fact he gets a mixture of 1sts, 2nds and No. 1 common, and often times there is a "kick," that is got over by a deduction, leaving still a good profit to the seller, who has anticipated the kick, and the buyer is left with inferior lumber, which often the architects turn down.

Just what its the best remedy is something that has to be thought out.

Yours truly,

QUEBEC LUMBERMAN

Cement Barrel Market in England

The class of material used in the United Kingdom for Portland cement barrel stock, writes United States Commercial Agent E. P. Secker, is fir, which comes chiefly from the Baltic region. The sizes for staves are ½ inch thick by 3, 3½ and 4 inches wide, and 26, 27 and 28 inches long. The grade is good No. 2 common, but the stock must be free from large and unsound knots; small knots if sound are not considered a defect. The price for this stock is $40 per St. Petersburg standard of 165 cubic feet, or about $20 per thousand feet delivered f.o.b. London. The raw material from which the stave and heading stock is made is chiefly trimmings; and the stock is considered a by-product of the mills furnishing it, only a minimum charge being made for the slabs, etc., going into it.

A Growing Lumber Concern

The Forest Lumber Company of Hamilton, Ont., with head office at 24-26 Main street, have just completed their first year in the wholesale lumber business, during which time they have spread out through the country finding customers in nearly every province. The company is fortunate in having as its manager Mr. J. P. Eastman who has been identified with the lumber business for a number of years in its different branches and latterly with the R. G. Kinsman Co. of Hamilton. All kinds of hardwoods and soft woods are handled by the company.

Hemlock Manufacturers Hold Meeting

Demand for Hemlock Reported Brisk and Supply Scarce—No Further Advance in Prices Until Spring—Manufacturers' Views on Trade Conditions

A meeting of Ontario hemlock manufacturers was held at the Queens Hotel Toronto, on Oct. 16th. Those present were: Mr. N. Hocken of the Hocken Lumber Co., Otter Lake, who occupied the chair; Chas. McGibbon of the McGibbon Lumber Co., Penetanguishene; J. D. Shier and Kenneth Shier, of the J. D. Shier Lumber Co., Bracebridge; W. W. Carter of the Fesserton Timber Co., Toronto; R. J. Hutcheson of the Muskoka Wood Manufacturing Co., Huntsville; J. A. MacLean, Wingham; Wynn Lloyd, of the Quincy-Adams Lumber Co., Toronto; W. P. T. Ross of Knight Bros. & Co., Ltd., Burke's Falls; and W. J. MacBeth of the Parry Sound Lumber Co., Toronto. Mr. John W. Long, editor of the New York Lumber Trade Journal, who was visiting Toronto at the time was also present.

Mr. Hocken in opening the meeting expressed his pleasure at seeing so good an attendance. The chief trouble with the trade, he said, was that there was not a sufficient supply of hemlock to meet the demand. Under the present circumstances he was not in favor of asking more than $18.00 for ten to sixteen foot lengths. Although there was no doubt in his mind that higher prices could be obtained, he feared that if more money was asked it would antagonize the building trade, which would be impolitic. More particularly would this be so, as there was very little hemlock to offer and the small amount of extra money obtained would not in any way counteract the bad impression which would be created. Speaking of the high cost of production, Mr. Hocken stated that the chief reasons for this were the high rate of wages and the high cost of provisions. Although the hay crop was good and the price normal, straw was a very bad crop, and oats to-day could hardly be secured on account of the car shortage. Naturally, this considerably raised the cost of keeping horses. Referring to tanbark, Mr. Hocken said that the tanneries had not their usual supply and he believed the mills might expect $9.00 for it.

Mr. McGibbon agreed With Mr. Hocken as to the wisdom of not asking higher prices. Just at present he thought it best to "Go steady." One of the reasons why it would be unwise to ask higher prices was that it would unduly enhance stumpage. He also advised manufacturers not to get out all their stock before next March, but to keep a little on hand. Comparing the situation with 1908, he noted that although prices obtained then were the same as at present, viz., $18, yet in 1907 hemlock cost the manufacturer $1.00 less to produce. Mr. McGibbon did not think that business conditions were really too healthy.

Low Stocks a Certainty

Mr. J. D. Shier stated that shipping was going ahead faster than cutting and consequently there would very soon be no surplus stock on hand. In his opinion $9.00 should be ample for the manufacturers to pay all round for logs. He also thought that the prices should remain as they are, at any rate until the spring.

Mr. Carter was in accord with the former speakers as to prices, but thought they should agree as to the prices they were willing to pay for logs. He was under the impression that those who had logs to sell were playing the manufacturers one against the other, stating that such a one had offered so much more than the man to whom he was speaking. Mr. Carter also touched on the point of the disappearance of hemlock in Ontario and drew attention to the fact that the standing timber available was continually getting farther away from the railway lines.

Mr. MacLean of Wingham, who was attending a meeting for the first time, reported that he does mostly a local trade. He is getting $22 for 10, 12 and 14 feet, and $24 for 16 feet, but at the same time he is paying $15 for logs.

Mr. Lloyd of the Quincy-Adams Co., Toronto, was the first speaker to come out strongly in favor of higher prices. He said that no mercy was shown to the manufacturers when they were in a hard position, and he did not think that the manufacturers should show any mercy now that they had the upper hand.

Mr. Hutcheson pointed out that although $18 was a very satisfactory price to obtain, yet it was not nearly so large proportionately for the manufacturer as in 1907. He also fell into line on the question of not asking higher prices at present for the simple reason that manufacturers had hardly anything to sell. He was quite firm in his opinion however, that at least $20 should be asked in the spring.

Mr. Hocken in addressing the meeting again, stated that his company had manufactured 6,000,000 feet this year and he did not think that they would have a quarter of a million left when they shut down. Talking of future possibilities, he said that there was an immigration this year of over half a million people and yet manufacturers were unable to obtain sufficient labor. Undoubtedly, next year, immigration would be even greater and this would create a still further demand for all classes of lumber. He mentioned that very little hemlock had been manufactured before ten years ago and to-day hemlock was almost depleted, close to the railways. In his opinion prices would never drop to those of former years.

Mr. MacBeth, drew a comparison between the years 1907 and 1912. In the former, the yards were all loaded to their full capacity and the rivers were full of logs. To-day quite the opposite was the case. The yards were practically empty and there was nothing to be seen on the rivers. He sounded a note of warning as to raising prices too high. It was his firm conviction that trade to-day was not abnormal, but the shortage of cars made it appear so. He differed from Mr. Hocken on the point that prices would never drop back to their former level. He thought it quite possible that spruce might be more continually substituted for hemlock. At present 2 x 4 spruce was not a competitor with hemlock, but 2 x 6 and the larger sizes were. Perhaps it might be alright to ask $20 in the spring, but certainly no more.

In talking of the pine situation, Mr. MacBeth stated that pine from New Brunswick was competing with Ontario pine. Referring to the recent purchase of the Jocko limits, he hoped that Mr. McFadden would see a reasonable return on his money, but most of those present seemed to think that $13.26 was too much to have paid for these limits.

Touching again upon tanbark, Mr. Hocken said that $7 a cord could be got at the mill and in a few cases $8 to $8.50.

Conditions in the United States

Mr. John W. Long, editor of the New Work Lumber Trade Journal, was called upon to address the meeting and to discuss trade conditions in the United States.

Mr. Long's first remarks dealt with the value of associations of lumbermen. One of the best associations he knew of in the United States had an order of business exactly similar to that which the hemlock men in Ontario had adopted. They laid great stress upon a heart to heart discussion of actual trade conditions. Sometimes he had really been surprised at the frankness with which they related their business affairs to one another. "I think this heart to heart talk idea is the very best feature of association effort," said Mr. Long.

"As to conditions in United States we have an election on hand shortly. In spite of that it seems to me that whoever may be elected, it is noticeable that the campaign has had less effect upon business than ever before. Business conditions to-day are a little peculiar. One of these conditions I have noticed once before in about twenty years. At the consuming end of the business in the big markets like New York, Philadelphia, Baltimore, Pittsburg and Cincinnati stocks seem to be low. Orders are given as a rule marked "rush" and if they are not marked rush a letter generally follows the next day, asking for immediate shipment. I suppose you all have experienced that sort of thing in this country. I think that in view of the current situation however, some people have a wrong idea as to the actual volume of going business in some cases. In some lines the yard man or a man who is making out big schedules and who would customarily send out the list of requirements to half a dozzen firms, is now finding difficulty in getting supplies quickly and is doubling the number of firms to whom he writes. With the larger number of enquiries, some people have got the idea that the demand is greater than it actually is. However, in such a case one order would wipe out a large number of enquiries. I am fairly convinced however, that business is up to normal to-day and I look for an excess of business in the coming year."

Present indications, Mr. Long said, were that stocks in many lines would be nearly wiped out during the winter. For instance the yellow pine men were very short of stock. September had been the lowest month in their business in a decade. All this meant a strong market, but the volume of business was not there.

Referring to the question of substitution Mr. Long agreed with other speakers upon the point. The price on a given class of lumber could be raised only to a certain point, above which the buyer would substitute. This would send trade to a different part of the country and even to a different class of material in the place of wood.

This had already become strongly noticeable in connection with the substitution of concrete and steel.

Speaking of hemlock Mr. Long said that evidently there was a scarcity both of hemlock and tanbark in the United States to-day and the man who had them for sale was a prince in the lumber business. Hemlock in the United States was pretty high to-day.

Some years ago he had stated in the Lumber Trade Journal that hemlock would go to a $14 basis. He was then told by a hemlock man that he was very foolish to make such a prediction. He had lived however, to see this man take back all he said. He believed that to-day hemlock was at least on a $23 basis and that it would probably go higher.

Before officially closing the meeting, Mr. McGibbon proposed and Mr. J. D. Shier seconded that Mr. Carter be the president for the next meeting.

Copies of the rules for grading hemlock timber which had been adopted at a previous meeting, were distributed to those present by Mr. W. W. Carter. This question of grading has long been in a very unsatisfactory state and it is hoped that the rules laid down on these cards will in future be rigidly adhered to. These cards were distributed to the members, and similar ones have been mailed to about seven hundred others.

Lumber Production of the Soo District

United States Consul, George W. Shotts, Sault Ste. Marie, Ont., in a recent report to his department says:—

"The lumber cut of this district for 1911 was 265,000,000 feet, against 292,000,000 feet for 1910. The value of the lumber declared for shipment through this office to the United States for 1911 was $4,288,021, compared with $5,033,960 for the previous year. This decrease was due principally to the unsatisfactory prices, and large quantities were piled on the various docks for shipment during the present year. It is stated that the lumber cut this season will be considerably less than last season. At least one, and probably two, mills in this district will not operate, and others will have but one shift. Most of the large bodies of pine timber have been pretty well cut, and those remaining are generally in the hands of people who are able to hold for a future rise in valuations. Lumbermen are careful about waste, and they claim that they will clear $15,000 this year on what has heretofore been thrown aside and burned as waste.

Output of Wood Pulp—Construction of Paper Mills

"The output of the pulp mills of the district during 1911 was 51,719 tons of ground wood pulp, against 66,998 tons for 1910. The pulp invoiced at this office for shipment to the United States for 1911 was valued at $719,591, compared with $1,220,883 for 1910. This decrease is accounted for by the closing down of both mills for a long period during the year for improvements and new construction.

"A paper mill with a daily capacity of 100 tons has been built in this city at an approximate cost of $2,000,000. Another paper mill with a capacity of 37,000 tons per annum and costing $1,250,000, has been completed. The latter company purchased the pulp and paper mills located at Sturgeon Falls.

"Natural facilities for water power are among the most important assets of this district. There are 15 rivers having their rise in a height of land in a vast wilderness, with numerous little lakes and plateaus forming natural water reserves, and all having falls and rapids aggregating hundreds of feet, making it possible to use the water a number of times in many cases.

Northern Ontario Timber Resources Exhibited

An interesting travelling exhibition of the products of northern Ontario is being shown by the Ontario government in a special demonstration car. Among the exhibits is one which gives striking illustration of the fact that there is timber of excellent quality and size to be secured in northern Ontario. A section of a pine tree measuring 36 inches across is shown. This was taken from the tree at a height of 14 ft. from the point where it was cut. A similar section taken at a height of 75 ft. is 18 inches across. Eight cross-cuts of a single spruce tree are also shown, the first, taken 14 feet above the stump is 20 in. across. The section at 28 feet above the stump measures 18 in. across. The section 38 feet above the stump is 16 in. across. The section 49 feet above the stump is 14 in. across. The section 60 feet above the stump is 12 in. across. The section 72 feet above the stump is 9 in. across. The section 82 feet above the stump is 8 in. across, and the section 92 feet above the stump is 6 in. across. The height of the tree was 104 feet. Similar samples are also shown of balsam, elm and tamarack.

The Reading Camp Association has recently been closing its night schools at railway construction camps in Ontario and opening those in the lumber camps for the coming winter.

George Gordon Appointed a Senator

Prominent Ontario Lumberman and Politican Called to Assist in Deliberations of the Upper House

George Gordon, Cache Bay, Ont., Appointed to vacancy in Canadian Senate

The report from Ottawa that Mr. Geo. Gordon, President and General Manager of George Gordon & Co., Ltd., Cache Bay, Ont., has been appointed to fill one of the vacancies in the Canadian Senate, was received with interest by lumbermen in Canada. Mr. Gordon is one of the best known and most widely esteemed lumbermen in the province of Ontario and has taken a prominent part in politics for many years. Recently he resigned his seat in the Dominion Parliament in order to provide a seat for the Honorable Frank Cochrane, who had been appointed Minister of Railways and Canals in the Dominion Cabinet. Mr. Gordon was born at Packenham in 1865, and a few years later moved with his father to Pembroke where he was educated in the public and high schools. He selected lumbering as his life's occupation and at the early age of sixteen, started on his career. During the next ten years he was to be found with Messrs. Booth & Gordon on the Kippewa. He next became a logging contractor for Mr. John R. Booth and Robert Booth, and during the subsequent four years he was with the late J. W. Munro, of Pembroke. Two of these latter years were spent in Bay City, Mich., superintending the cutting of the logs. After this Mr. Gordon associated himself with Messrs. Robert Booth and R. W. Gordon in the firm of George Gordon & Co., at Cache Bay, Ont., with which business he has ever since been identified.

In the Dominion election contest of 1904, Mr. Gordon represented the conservative interests in Nipissing, but was defeated by Mr. C. A. McCool. In 1908 however, Mr. Gordon was again unanimously selected to contest the riding in the conservative interest, and was successful in being elected to Parliament, defeating Mr. McCool in a spirited contest.

In addition to his large interests at Cache Bay, Mr. Gordon is director of the following companies: Cache Bay Lumber Co., Ltd.; The Lovering Lumber Co., Ltd., of Toronto; The Temagami Lumber Co., Ltd., of Orillia; The Strong Lumber Co., Ltd., of Orillia; The A. J. Young Co., Ltd., wholesale grocers and provision merchants of North Bay and Sudbury. The Cochrane Hardware Co., Ltd., Sudbury; The Gordon Development Co., Ltd., of British Columbia; and a stockholder in the Cavendish Lumber Co., Ltd., of Lakefield, Ont.

A Pioneer of the Paper Industry

The recent sale of the plants of the Canada Coating Mills and the Georgetown Paper Mills at Georgetown, Ont., in which John R. Barber, ex-M.P.P. was the largest shareholder, to the Barber Paper & Coating Mills Company, which was lately organized, recalls several incidents in the career of Canada's veteran paper manufacturer. Mr. Barber, who will soon celebrate his seventy-first birthday, has had a long and active record, having been continuously identified with the trade for over half a century. William Barber, who was his uncle, established the Georgetown mill in 1855 and at that time there were only three news plants in the Dominion, the Don mill near Toronto, operated by the Taylors, being one of them. James Barber, a brother of the founder of the mill, and father of John R., was the first man in Canada to learn the paper making trade. This was away back in 1830. Paper was made by hand in those days, and with his sieve, vat and blanket, James Barber was an expert in its production. In 1888, an electrical plant on the Credit River was installed for driving part of the machinery of the mill and was the first hydro-electric concern started in Canada for the transmission of power for transportation and industrial purposes. In the early sixties news print and book paper were made at Georgetown from wheat, oat and rye straw, instead of the ground wood and sulphite pulp that we have to-day. Corn stalks were also used for a time but the supply locally being limited, they had to be abandoned. Later on news print was made of rags and was better in grade and texture than much of the

book paper of the present time. What would Canadian newspaper publishers think to-day if, instead of paying about two and a quarter cents for their supply, they had to buy it at eleven and twelve cents per pound. Yet many years ago dailies were furnished with news print from the Barber plant at this figure. The Grand Trunk Railway was just being completed between Toronto and Georgetown in the middle of the fifties when the Barber mill began business, and the first shipment to Toronto was three carloads of wrapping paper, drawn by a wood burning locomotive. Mr. Barber and several men from the mill rode on the flat cars, having several buckets of water close at hand to prevent the paper from taking fire.

Interesting Legal Decision Regarding Driving Costs

A decision in the case of the Harris Tie and Timber Company, Ottawa, vs. Gillies Bros., Limited, Braeside, Ont., has just been handed down by the board of arbitrators consisting of His Honor Justice Gunn, Mr. Burwash, of Arnprior, and Mr. A. E. Corrigan, of Ottawa, which is of much interest to those engaged in lumbering operations. During the season of 1910-1911 both the parties were engaged in lumbering operations on the Madawaska River, the bulk of the Gillies Brothers drive being behind that of the Harris Tie & Timber Company. The latter drive being made up mainly of telegraph poles was slower moving than the other, and in consequence the timber of Gillies Brothers became mixed with the telegraph poles and all were brought down together by the men of the Harris Tie & Timber Company, and the latter company made a claim for a proportion of the cost of the drive. Messrs. Gillies Brothers resisted this on the ground chiefly that the whole trouble was due to the slow rate at which the poles were moving and claimed that they were entitled to damages for delay.

The claim of the Harris Tie & Timber Company for the proportionate cost of the drive amounted to $3,295 and the amount claimed by Gillies Brothers was $2,268. The case was tried in July last and judgment reserved. A decision has now been given in favor of the Harris Tie & Timber Company fixing the amount payable by Gillies Brothers for their share of the drive at $2,100 and dismissing Gillies Brothers claim excepting as to some small items aggregating $130.

Government Withdraws from Customs Appeal

A somewhat peculiar and unexpected development occurred recently in the progress of the Foss Lumber Company case, which is being heard on appeal before the Supreme Court, at Ottawa, and which involves the right of the Department of Customs to collect duty on rough lumber coming into Canada. At the conclusion of the case for the company by W. D. Hogg, K.C., who maintained that the lumber in question conformed with the requirements for free entry, Travers Lewis, K.C., counsel for the Attorney-General of Canada, rose and intimated to their Lordships that as the issue of the case more directly concerned the Foss Lumber Company, appellants, and the British Columbia Lumber & Shingle Manufacturers, intervenants, it would be unnecessary for the Crown to do more than submit the case.

The hearing of the case was concluded on October 15th. and judgment was reserved.

It is announced that the second mill of the Shevlin-Clarke Lumber Co., at Fort Francis, western Ontario, will be made larger than was at first contemplated. It will be constructed with sufficient capacity to bring the total yearly output of the company's two mills at that point up to 100,000,000 feet. The timber from the limits at Banning will be brought down to Fort Frances by rail. Work is now under way on the new plant.

During their recent visit to Victoria, B.C., the Duchess of Connaught and Princess Patricia visited a logging camp about thirty miles from that city. They had dinner at the camp, eating the same food as the loggers and professed to enjoy it hugely.

Tariff Decision on Lumber Reversed

Ottawa, Oct. 29.—The Supreme Court to-day reversed the judgment given last summer by the Exchequer Court, declaring that lumber dressed on one side or edge and roughed on a second side or edge after planing was subject to duty under the wording of the tariff. Until recently this class of lumber was admitted free, the Minister of Customs holding that it was entitled to free entry. The Customs department recently ruled that duty must be collected. This interpretation was challenged by western importers. The Exchequer Court upheld the decision of the Customs Department, that duty should be collected. On appeal to the Supreme Court this latter decision has now been upset, Justices Duff and Anglin dissenting. The case will now probably go to the Privy Council for final decision, unless Parliament takes action this session to remove the doubt by amending the wording of the tariff act.

Eastern Canada's Vicegerent Snark

Ross Allan Rastall of Toronto, a Lumberman of Wide Experence and One with Reputation for Thoroughness

R. A. Rastall, Vicegerent Snark for Eastern Canada

Ross Allan Rastall, Vicegerent Snark of the Concatenated Order of Hoo-Hoo for Eastern Ontario, although still a young man, has had a wide experience in the lumber business. He was born in Kincardine, Bruce County, Ont., on March 1st, 1862. His parents were both Scotch and owned a farm on which R. A. Rastall was born.

At the age of 13, young Rastall left school and commenced to work on the farm, remaining there till he was 19 years of age. Then he decided to strike out into business and chose the lumber trade as the one in which he thought he would be able to get along best. His first position was with the firm of Mickle, Dyment & Son as tally-boy at their Kincardine yard. It was not many years before he found himself occupying the important position of yard-foreman. After being in Kincardine for about six years the firm moved their yard to Goderich and Mr. Rastall was appointed manager. Several years were spent at Goderich in this position and then Mr. Rastall went on the road for a few years, as a traveller for the firm, representing them in Western Ontario.

The next step was to leave the road and take a position at Brantford as manager for the same firm, in connection with their planing mill and lumber business at that city. Mr. Rastall remained in Brantford for eleven years and while there had the honor of representing ward five for four years as Alderman. Last year the people of Brantford thought so well of him that they elected him to the position of Mayor.

Last Spring Mr. Rastall formed a partnership with Mr. W. Boake, of Toronto, under the firm name of R. A. Rastall & Company, and moved to Toronto, to take over the old-established business of Martin McKee & Sons, which had been in existence in the eastern section of Toronto for about thirty-five years. This move has proved to be a most successful one and Mr. Rastall now declares that he is only sorry he did not take such a step long ago. Mr. Rastall was a little over twenty-five years with the firm of Mickle, Dyment & Son and during that time secured an excellent all-round education in the lumber business, which is bringing him well-merited success and which will be certain to assist him in making a success of his efforts in behalf of the Concatenated Order of Hoo-Hoo.

Concatenation at Toronto in December

Mr. R. A. Rastall, Vicegerent Snark, of the Concatenated order of Hoo-Hoo for Eastern Canada, is arranging to hold a concatenation at Toronto during the early part of December. Hoo-Hoo matters are quite lively in Ontario at present and it is believed that a record class of kittens will be ready to have their eyes opened upon this occasion. All members are requested to stir things up as much as possible and to send to Mr. Rastall, 1072 Queen street east, as big a list of candidates as they can secure. W. M. Stephenson, Supreme Scrivenoter, paid a hurried visit to Toronto recently and it is expected that he will be on hand for the concatenation there in December.

United States Imports of Ground Woods

In the seven months ended July 30, 1911, the United States imported ground wood to the value of $2,151,488, of which $1,740,393 worth entered duty free. In the seven months ended July 30, 1912, they imported ground wood to the value of $2,362,395, of which $1,152,598 worth entered duty free. In the seven months ended July 30, 1911, they imported from Canada 24,745,213 pounds of unbleached chemical fibre, valued at $395,287, and 7,106,100 pounds of bleached chemical fibre valued at $182,101, all of which came in duty free. In addition to this chemical fibre from Canada they imported from other countries in the seven months ended July 30, 1912, 278,456,327 pounds of unbleached, valued at $4,197,333, and 84,235,674 pounds of bleached, valued at $1,790,712, all of which paid duty. It is apparent from the above figures that imports of ground wood, the logs for

which came from Crown lands, increased, and that from private lands decreased; the indication being that the prohibition of the export of unmanufactured pulpwood from Crown lands is encouraging the manufacture of much pulpwood into pulp in Canada.

A New Winnipeg Industry

The Acme Sash & Door Co. Ltd., which was recently incorporated, with headquarters at Winnipeg, Man., has made rapid progress in the erection of its plant at Norwood, Man. The company expected that they would be able to have their plant in operation by November 1st. The building is 107 ft. x 72 ft., two storeys, of mill construction with rock face metal ceiling on the outside and mounted on cement piers. The construction is being carried out in a very substantial manner, as the company expect at a later date to add a third storey, and are making provisions to do so with as little alteration as possible. The plant fronts on Des Murion street, and at the rear are located the tracks of the Canadian Northern Railway Co. The site contains 2½ acres, practically all of which will be occupied by the buildings, as it is also the intention of the company to add to the length of the present building. The boiler room and machine shop are located at the rear, the machine shop having a shaving vault on the upper floor, to which shavings from the mill will be carried automatically. This building will be 30 ft. x 50 ft.

Early next year the company will erect a warehouse in which to stock the product of the factory. They will also erect a large dry kiln. The machinery for the factory was all in hand ready to be installed upon the completion of the building. The buildings which have now been erected, will cost about $20,000. When the plant is in operation, about 100 men will be given employment. The firm is handling all its own construction work with the exception of the heating plant. The officers of the Acme Sash & Door Co. Ltd., are T. D. Robinson, president; F. Hinds, vice-president; A. T. Wilson, managing director, and E. M. Counsell, W. P. Alsip, A. B. Anderson, G. W. Ford, J. Sutherland and W. W. Cross, directors.

Report on Timber in Northern British Columbia

The forest branch of the lands department of British Columbia fully realize that there are immense timber areas in the province of which they know very little, and the chief object of the forest surveys which Hon. W. R. Ross, Minister of Lands, is having carried out is the acquisition of information as to the kind and quantity of timber in the province. The latest information on the subject is contained in a letter received at the forest branch from Mr. F. Stephens, a fire warden at Stuart Lake. Mr. Stephens writes in part as follows:—"I have just come across fine timber up in this country. The best timber is in the Driftwood river country, that flows into the upper end of Tacla lake, all government owned. It will all come down to Stuart lake. There are about forty-five or fifty sections, averaging from ten to fifteen million feet to the section. There is some of it that will easily go thirty-five to forty thousand feet to the acre, chiefly spruce, a little fir and black pine.

Reorganization of Dominion Saw Mills Progressing

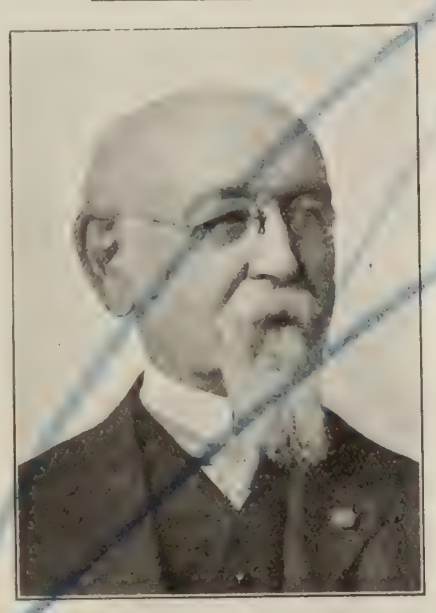
The scheme for the re-organization of Dominion Saw-mills and Lumber Ltd., Revelstoke, B.C., has been approved by the security holders in England and will shortly become operative. Arrangements are in progress for the formation of a new company to take over the assets of the old company. When this has occurred a strong board of directors will be in control. Until then the properties will remain in the control of the receivers appointed by the court for the protection of the interests of the debenture holders, and will be operated under the supervision of the receivers who are acting under the direct instructions of the court. In a letter to the Canada Lumberman the receiver states that the lumber situation so far as he can judge is a very promising one, and that barring unforseen occurrences it is the universal opinion among lumber manufacturers that the season of 1913 will prove to be most satisfactory to the whole of the trade.

Trained Foresters in Great Demand

Dean Fernow, of the Faculty of Forestry of the University of Toronto, has been deluged recently with requests for trained foresters. The twelve men who left the school last year have all found positions of responsibility with the various governments and the railroads. The great majority of the recent graduates have been taken by the Dominion Government, but the institution of a remarkably progressive forest policy in the Province of British Columbia has brought about an unprecedented demand, and large salaries are being offered to the technically trained men. Dean Fernow foresees a shortage which will to a certain extent cripple the forest services. He is therefore allowing men of the other natural and applied science courses to enter the forestry faculty under special regulations and complete their four years so as to secure the degree of B.Sc.F.

Seventy-Four Years and Still Young

G. H. Millen, Joint Manager of E. B. Eddy Co. Celebrates Birthday by His Usual Hard Day's Work



G. H. Millen, seventy-four years young

Ottawa, October 24th, (Special correspondence of the Canada Lumberman and Woodworker).—Mr. George Henry Millen, joint manager with Mr. W. H. Rowley, of the E. B. Eddy Company, of Hull, Que., celebrated his 74th birthday yesterday by working hard, the same as he has celebrated the forty-six birthdays he has had since he joined the company. All day long a steady stream of telegraph boys and letter carriers called at Mr. Millen's office with messages of congratulation from every conceivable person of prominence in the manufacturing world on the continent.

Although Mr. Millen is 74 years of age he is as healthy and active as a young man of twenty-five. According to his custom he was on the works yesterday before eight o'clock in the morning, giving his personal attention to the extensive alterations and improvements that are being made to every department of the Eddy plant.

George Henry Millen was born in Glen Falls, N.Y., October 23rd, 1838. He went to school there and started work there, too. His first notable experience in life was when he joined the Northern Army and fought in the American Civil War in the '60's. To-day he proudly wears the medal given to those who fought in that campaign. Forty-six years ago he joined the staff of the E. B. Eddy Company, in a less responsible position than he has to-day, and he has, through his own energy, risen to be joint manager of one of the largest manufacturing concerns of its kind in the world. He says that the reason he is enjoying such good health is because he has worked hard. He maintains that work is the best of all rejuvenators. He loves work, advocates it as a care and worry scarer, and claims that it makes doctor's bills an impossibility. Although he loves work so much, he loves healthy sports none the less. Motoring is his chief enjoyment. He was one of the first men in the Ottawa district to own a motor car and to-day he has one of the best in either Ottawa or Hull, which he drives every day himself.

Since Mr. Millen came to Eddy's he has invented a number of useful machines for the woodworking and papermaking trade. These machines are time and labor saving. He is a practical man in his business. He positively hates a theorist, avows that a theorist is the most impracticable soul imaginable around a paper making or woodworking plant.

Mr. Millen looks forward to many more years of useful work, for he says he feels equally as fit as he did forty years ago. His life has been a long period of service to the lumber, woodworking and papermaking trade and the community at large.

St. Lawrence Insurance Rates Unfair

We have on previous occasions referred to the vexed question of insurance rates imposed by underwriters upon shipments from the St. Lawrence, says the Timber Trades Journal, of London, Eng. More than seven and a half million sterling have been spent during the last decade in improving the waterway, but we understand that the insurance rates remain on the basis established in 1900. In these circumstances, Canadian shippers feel that they have a grievance against London underwriters, seeing that the objections raised against the route have, so far as is physically possible, been overcome. Advices which have just reached London show that a movement has been set on foot to form a Canadian insurance institution somewhat on the lines of the Scandinavian offices, whose policies the timber trade is fairly familiar with. The movement is what to us seems chiefly a question of financial backing, and if convinced of the stability of the underwriting concern, we have no doubt buyers on this side would be quite prepared to accept equitably worded policies emanating from Canadian institutions.

Something like 4,850,000,000 feet of new timber supply is being opened up on Vancouver Island, through the construction of new railroads.

THE WOODWORKER

Electric Drive for a Woodworking Factory

Electric drive is now so generally recognized as an efficient method of furnishing power for woodworking machinery that many of the most important plants in Canada and the United States have been equipped to take advantage of its benefits. Several plants in Canada which are equipped with electric drive have already been described in the Canada Lumberman, and we are now fortunate enough to be able to publish a description of the machinery and electrical equipment of an important planing mill and hardwood flooring plant at Louisville, Kentucky, U.S.A.

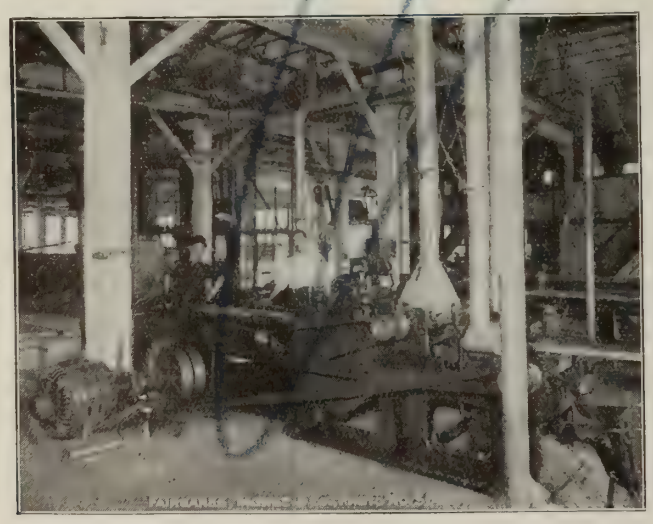
The Louisville Planing Mill & Hard Wood Flooring Co. is incorporated under the State laws of Kentucky, for the purpose of

Fig. 1—30 x 12 Double Surfacer, driven by 20 H. P. and 7½ H. P. Fairbanks Morse Motor

manufacturing interior and exterior millwork, sash, doors and high class stair work. The plant covers approximately 75,000 sq. ft., employs 90 men and uses about 500,000 ft. of lumber annually, which is manufactured into various kinds of interior and exterior finish.

This plant formerly operated its own power plant, but after being destroyed by fire, installed entire new wood working machinery, operated by motors in the most up-to-date style of drive. Practically all the machines are direct connected as shown in the schedule following.

All motors are of the Fairbanks-Morse manufacture, and are 3-



No. 2—S. A. Wood Inside Moulder, Driven by 25 H. P. Fairbanks-Morse Motor

phase, 440-volt, 60-cycle. The total horse-power of motors installed is 294 of which 246 h.p. operates on individual drive, and 48 h.p. on group drive as shown in schedule.

The principal point of interest in connection with the electrical equipment of this plant, is the extreme limit of speed, which is rather unusual for this class of motor. The planers have the motors directly attached to the cylinders, motors operating cylinders at a speed of 3,600 r.p.m., motors being directly connected through flexible couplings.

The double surfacer shown in the illustration, is operated by a 20 h.p. motor at a speed of 3,600 r.p.m., direct connected to the upper cylinder through flexible coupling. The lower cylinder of this machine is belted to a 7½ h.p. 1,750 r.p.m. motor.

While there are some few cases where the planer cylinders are operated by induction motors direct connected to cylinders, the direct connecting to the cylinder of the double surfacer is entirely new in this territory, and is proving successful and giving excellent satisfaction.

The triple drum sander is driven by a 20 h.p. 570 r.p.m. motor, direct connected through flexible coupling to the countershaft on machine.

The 70 in. Sturtevant low power blower is operated by a 40 h.p. double end motor at 475 r.p.m., the shaft of motor being extended sufficiently for the fan blades to be directly mounted on each end of shaft. This blower serves readily all the machines given in the following schedule:

1-40 h.p. 1,150 r.p.m. motor, belted to Fig. 501 American 54 in. band resaw, with

1-3 h.p. 1,750 r.p.m. motor, operating Fig. 511 double jointing attachment, which is direct connected to the cylinders by belt.

1-40 h.p. 475 r.p.m. double end motor, operating a double 70 in. Sturtevant low power blower.

1-25 h.p. 850 r.p.m. motor, direct connected through flexible coupling to countershaft of S. A. Wood No. 107 inside moulder. This is a general purpose machine, combined planer, matcher and moulder for manufacturing flooring, interior finish, moulding, etc. The chief

Fig. 3—70" Sturtevant Blower, driven by 40 H.P. Fairbanks-Morse Double End Motor

characteristics are ease of adjustment, large range in capacity, and quickness of operation.

1-20 h.p. 3,600 r.p.m. motor direct connected through flexible coupling to the cylinder of a 30 x 12 double surfacer, having

1-7½ h.p. 1,750 r.p.m. motor belted to the lower cylinder of this double surfacer.

1-20 h.p. 570 r.p.m. motor, direct connected through flexible coupling to countershaft of Fig. 1073 Columbia 48 in. x 10 in. triple drum sander.

1-15 h.p. 850 r.p.m. motor direct connected through flexible coupling to countershaft of Fig. 8441 No. 22, 10 in. four side moulder.

1-15 h.p. 1,750 r.p.m. motor belted direct to mandrel on one figure 5701 No. 2 self feed circular rip saw.

1-10 h.p. 3,600 r.p.m. motor direct connected through Grundy patent flexible coupling to the cylinder of one Fig. 783 No. 4½, 24 in. x 7 in. single furniture planer with sectional feed rolls.

1-7½ h.p. 3,600 r.p.m. motor direct connected through Grundy patent flexible coupling to the cylinder of one Fig. 7651 No. 5, 24 in. x 8 in. single surfacer.

1-7½ h.p. 850 r.p.m. motor direct connected through a flexible coupling to the countershaft of one Fig. 8601 No. 1, 6 in. four side moulder.

3-5 h.p. 1,750 r.p.m. motors, each motor belted to the mandrel of a No. 11 John T. Towsley Mfg. Co. hand feed rip saw.

1-5 h.p. 1,750 r.p.m. motor belted direct to the mandrel of one Fig. 633 No. 1 variety saw with boring attachment.

3-3 h.p. 1,750 r.p.m. motors, each motor belted to a new pattern swing cut off saw, and each motor is belted to the iron frame of the swing which eliminates all counter shafting.

2-3 h.p. 1,750 r.p.m. motors, each motor belted to the cylinders of one Fig. 801 No. 1, 12 in. hand jointer and 1 figure 802 No. 1, 16 in. hand jointer.

1-15 h.p. 850 r.p.m. motor direct connected through flexible coupling to:

1 15/16 x 20 ft. line shaft running at the speed of the motor, having ring oiling bearings. To this shaft are belted the following machines:

1 Smith & Phillips window frame machine.
1 Figure 801 No. 1, 12 in. hand jointer.
1 Figure 616 No. 7½ combination saw.
1 Figure 7651 No. 5, 24 in. x 8 in. single surfacer.
1 Figure 633 No. 1 variety saw with boring attachment.

1-15 h.p. 850 r.p.m. motor direct connected through flexible coupling to:

1 15/16 x 28 ft. line shaft running at the speed of motor, having Sells' patent roller bearings. To this shaft are belted the following machines:

1 Figure 9421 No. 1 tenoner with double heads and two copes.
1 Figure 907 No. 1 mortises with boring attachment.
1 Figure 8848 No. 3 hand feed panel raiser.
1 New Britain No. 2 standard chain saw mortiser.
1 Figure 8842 No. 5 blind stile mortising and boring machine.
1 Figure 929 No. 2½ two spindle shaper.
1 Figure 1095 No. 9 column sander, Nicholas pattern.
1 J. A. Fay & Egan No. 88552, 24 in. drum sander.

1-10 h.p. 850 r.p.m. motor direct connected to 1 15/16 x 28 ft. line shaft running at the speed of motor, having Sells' patent roller bearings. To this shaft are belted the following machines:

1 Figure 878 No. 2½, four side sash sticker.
1 Figure 1104 No. 2 universal sander.
1 Figure 978 No. 9 post borer.
1 Figure 898 No. 10 sash relisher and mortiser.
1 Fay & Egan double end emery wheel stand.

1-5 h.p. 850 r.p.m. motor direct connected through flexible coupling to

1 11/16 x 20 ft. line shaft running at speed of motor, having ring oiling bearings. To this shaft are belted the following machines:

1 Figure 510, 38 in. band saw.
1 Black Bros. No. 1 pioneer 8 in. moulding sander.
1 Figure 3231 stationary double scroll saw.
1 Figure 1054, 10 in. x 24 in. pattern makers lathe.

1-3 h.p. 850 r.p.m. motor direct connected through flexible coupling to:

1 3/16 x 12 ft. line shaft running at speed of motor, having ring oiling bearings. To this shaft are belted the following machines:

1 S. A. Wood's automatic knife grinder.
1 Hanchett automatic circular saw grinder.
1 Samuel J. Shimer double end emery wheel stand.

Management of a Planing Mill

First of a Series of Articles Contributed by N. J. MILLETTE

The planing mill business looks very profitable to the enthusiastic manager until the inventory statement reduces the amount of the expected profit. The poor fellow who has worked hard and steadily then feels amazed and suspects that the system is leaky.

This trouble is frequently witnessed and appears to be the burden of millmen in general, even those having the best system of management will meet endless new difficulties and repetitions of old troubles very often under a new appearance, as a result of the varied nature of the materials used and of the factory equipment and its employees.

A successful factory built and equipped without special attention or knowledge of the trade would be a marvel and could be held up for the admiration of all millmen, especially those who are suffering from faulty installations.

We cannot take too much care in figuring out the location of mill machinery to assure proper handling of lumber at the various operations. The necessary space is a prime factor, but the most important point is to install the machines so as to form a continual flow of the stock in such a way that one operation will not interfere with another. We should also provide for increased production. Many factories are fairly well equipped with machines, but in a rush season, when it is necessary to increase help, the efficiency of the plant is lowered. Then, instead of extra business giving a greater proportion of profit, the surplus stock carried through will cause unnecessary labor which will consume the benefit.

Quotations and Contracts

An old saying in business is that stock well bought is half sold. We might say with no less accuracy in regard to factory work, that a contract well taken is half made.

A poor step in business is to take a job at a low figure in the hope of making a customer. We could spend a lifetime making customers in this way and die very poor, and the trade established would not be worth a row of pins. If there is not an apparent profit to be made on each contract, it should not be taken; no more from a friend than from a person who is expected to be a large customer.

If we have taken the responsibility of a contract, however, we should carry it out with all the knowledge and ability of the staff. and this is the point where a factory will prove itself. Accurate work, prompt shipments, and obligations fulfilled are powerful advertisements.

Never let the shop be crowded with unprofitable jobs, which, after starting, are completed to get rid of them. We can always pick up more of these than we really care to handle, and unless we fight firmly with the trade with this point in view, we realize some day that we are so crowded with common jobs that we could not handle a large contract in a reasonable time, and we may lose our best customers.

"Be firm in business." The old saying sounds true, and unless we know the exact value of a contract it is impossible to give a figure with confidence.

A person may be an excellent guesser on weights but he will never replace the modern scale. The same reasoning could apply to the value of a contract. A man may have remarkable ability for guessing values, but with the constant changes of design in shop work, the estimator must be familiar with the shop facilities and have up-to-date units of value based on actual cost.

Don't talk high prices. Fulfil your obligations, deliver the stock on time and your customers will have your name at the head of their list.

The cost system of calculating, as a rule, is very imperfectly understood. A manufacturer sometimes gets an idea that handling a cost system is as expensive as the manufacturing. We may certainly carry this system to excess, the same as any other good thing, and spoil it, make it look as bad as a piece of cabinet work overdone. We can spend a great deal more money than is necessary for a cost system, and it will not be worth a continental. It may be done by a staff of good clerks who have been wrongly instructed. This is very often the case, and the values are so inaccurate that we cannot use them with justification.

Some people will say that a good guesser can beat it, and this may seem true, but as two bad points will never make a good one, the only thing to do is to create the good information by the education of the workingman.

This is another point that is very weak in many of our factories and the writer will make an effort to point out what can be done to render the workingman more loyal and interested and to work as if they had a mission to fulfil.

Belt Tighteners—Are They a Help or a Hindrance

London, Eng., October 5, 1912.

To the Editor of the Canada Lumberman and Woodworker:—

Dear Sir,—Many thanks for your Annual Number, of September, which you sent. I found it very interesting reading, especially the mechanical section. While looking over the illustrations and advertisements I could not fail to observe the popularity of the belt tightener, especially on planers, matchers and moulders, etc. Now allow me to ask, are they really necessary? No doubt many will say, certainly they are, otherwise they would not be there. My own opinion is that in many cases they are not essential.

Here in London, Eng., we have practically the same machines

doing the same work, yet we never resort to tighteners. Perhaps it is because the makers here do not fit them on their machines to start with. That may be one good reason. Next, we prefer to have all our countershafts separate from the machines themselves, so that we can have a longer and easier drive. That, in my opinion, is much better practice than having all the pulleys and gearing underneath a matcher or moulder. It is next to impossible to drive such machines at 3,000 to 4,000 r.p.m. with short snappy drives, without resorting to tighteners of some sort. I know from experience that it is a much simpler operation to fix down a moulder or planer with countershaft combined. It saves time there, that is true. But do we not pay dearly for that time later on? Just think it over, ye that have belt troubles, where do they usually come from? Not from your main drives or from the lineshafting, rather is it that the high-speed belts give out and worry us at times.

Another point I notice, many makers put a ridiculously small pulley on many machines. So here we have another trouble aggravating the existing one (short drives plus small pulleys equals trouble). No doubt the self-contained machine works well and more business like than the other type with separate countershaft. I admit that right away. But we are all out for results, not appearances. Again, others may say your method takes up too much floor space. Say the countershaft is fixed 10 ft. behind the machine. That is wasted space which we can ill afford. Such is not the case. Every planer or matcher must have a taking-off table of some sort behind it and all the belts and pulleys are underneath it out of the way. In conclusion let me say that I have charge of a large mill here and have all sorts of machines, Canadian, American, German and English. They are all good, well made machines, yet we have no tighteners. We drive largely with motors, both group and direct, and find it cheaper than one large engine. I hope some of your readers will give their views on the above subject. Yours truly,

T. M. NEASHAM.

Western Canada News of the Trade

William Gordon, recently a pioneer of the north country, when in Edmonton reported the establishment of two sawmills at Fort McMurray, a new town at the confluence of the Clearwater and the Athabasca rivers.

The lumber mills in the Prince Albert (Saskatchewan) district will have upward of 2,000 men in the woods this winter. The camps in that district usually open late in October and a large number have already gathered in the city of Prince Albert. Most of the "jacks," however, do not go into the woods until well on in November.

W. G. Gladwin, supervisor of the provincial forestry protective service for Alberta, reported, on returning to Edmonton, on October 1, from a trip to Prince Rupert and the Skeena country, that the whole district adjoining the Skeena valley is heavily timbered, also that when the lumber is cut, the land will be suitable for agriculture.

Reports from Moose Jaw, Sask., state that a serious lumber famine is one of the possibilities in the near future. Local dealers report that their stocks are getting low and that, on account of the shortage of cars they cannot be replenished. Mountain mills are reported to have large supplies of lumber on hand which they are unable to ship out.

Reports from Seattle, Wash., state that nearly every shingle mill in the State of Washington has been closed, as part of a movement to resist a reduction in the price of shingles. No previous shutdown has ever been so general. It is said that the stoppage of production is supported by the financial interests and that the mills will not re-open until prices are firmly established.

Two Gigantic Boom Sticks

An interesting report from Victoria, B.C., states that two boom sticks of unusual length were recently made at the Canadian Puget Sound lumber mills for use on a stiff-legged derrick of the Canadian Mineral Rubber Co. at its wharf on the upper harbor. The stick of fir from which the lengthy booms were cut was selected with care by a special crew sent into the woods at Jordan river to look for a mighty tree, and the one they selected scaled 8,255 feet when they put it in the water to be towed to Victoria. The massive log was hauled up into the company's mill at Rock Bay and tipped on the sliding carriage which runs the big sticks against the quick-moving saw. It was soon squared, and two booms, one 16 inches by 18 inches thick, with length of 110 feet, and one 12 inches by 16 inches by 106 feet were cut.

Canadian wood piles for wharf construction and blocks for paving purposes have been losing out in British Columbia, but there is a prospect of them coming into their own again. The Canadian Pacific Railway, which is building large wharves, has been importing eucalyptus piles from Australia, since that wood, because of its gummy quality, is better able to resist the teredo. This company has found that creosoted fir lasts even longer than eucalyptus. It also has been found that wood blocks are excellent paving material if properly creosoted. The trouble has been that contractors supplied blocks that were improperly creosoted but the defect could not be noticed unless the blocks were split. The suggestion has been made that the municipalities which have much paving to be done should creosote their own blocks; then it would be known that the work was not skimped.

Hon. W. T. Finlay Retires From Business

Hon. W. T. Finlay has disposed of his lumber business at Medicine Hat, Alta., to the Crown Lumber Company. Hon. Mr. Finlay was one of the earliest business men in Medicine Hat. He opened a lumber yard at that town before the railroad had reached it and has been operating it continuously since June 2nd, 1882. For many years he conducted the only local lumber yard. For several years Mr. Finlay was Mayor of Medicine Hat and was also a member of the Territorial Assembly. When the Autonomy Bill was passed Mr. Finlay was honored with the appointment of Minister of Agriculture, a position which he filled for seven years. Mr. Finlay has been practically retired from business for a few years past, his sons having taken over the active management of the lumber business in which they are partners. In addition to the yard at Medicine Hat, the firm conduct yards at Carlstadt and Seven Persons. The latter two yards they will continue to conduct under the firm name.

Lumbermen Establishing Power Business

The Public Service Corporation is the name under which lumbermen of Vancouver, B.C., are applying to the city for a franchise to enable them to lay conduits for the conveyance of electric power and steam heat both to be generated from waste material of the lumber mills. Interested actively in the scheme are Frank Paterson, W. I. Paterson, John Hanbury, F. L. Buckley and L. G. Robinson. They hope to generate 20,000 horse-power in electricity from the mills at Burrard Inlet and False Creek and an offer will be made to the city at from three-fourths to one cent a kilowatt. Mr. Hanbury told how the steam-heating idea worked out in Brandon where coal was used at a high cost. Mention was made of the success of a mill in Portland in using its wood refuse in the generation of electricity. About three years ago a local syndicate obtained a franchise for the purpose now suggested by the millmen, but nothing was done, and the franchise lapsed.

B. C. Watching Logging Operators Closely

Reports from Victoria, B.C., states that the Forest Branch of the Department of Lands expects, by reason of the closer watch it will be able to keep on logging operations, to be able to meet the cost of its maintenance this year. An instance of the watchfulness of the Forest Branch and of the benefits which may result from its work, is afforded by the recent conviction of a firm of timber and tie contractors who were working in the northern districts of British Columbia last summer. Reports reached the Forest Branch that this firm was operating illegally upon Crown lands. An officer of the Branch was sent to the place and secured evidence upon which the firm were convicted and fined $250 and costs. They had already cut some 200,000 ties which it was their intention to send out of the province without having secured a license to cut, or having paid any ground rent or royalty. The government siezed the timber and sold it at public auction. The firm of contractors bought it in for between $12,000 and $15,000. All of this sum, together with the fine, were therefore clear gain to the province.

It is reported that the traffic in tie timber has been marked in the past by several instances of this sort of work. With the organization of the Forest Branch it is expected that it will be an easy matter to keep track of all the logging in progress and to collect all revenues due. The Forest Branch assert that there is no need for anyone to resort to measures of the above nature. If they wish to buy either timber or ties in any particular locality they only have to make application to the Forest Branch. A man will then be sent out to estimate the quantity and quality of the timber on the area and an upset price will be put upon it. It will then be offered at public auction subject to the upset price and the person wanting it can secure it at a fair price to the province and to himself.

Forest Protection in British Columbia

The close season for setting fires in British Columbia came to an end on October 1st, and the Forest Branch of the Lands Department is greatly pleased with the results which have been secured this year. The work of protection against forest fires has scarcely gone farther than the organization stage, yet with favorable weather, the results have been most encouraging. In order to secure thorough

efficiency however, it is recognized that the force will be greatly increased and the quantity of territory covered by each patrol reduced in corresponding measure.

During the summer which has just closed, fire rangers and divisional fire wardens have been collecting information which will be of value in the prevention of fires in future years. In cases where logging companies have no maps of their limits, the wardens have made rough maps, showing all the logging roads and trains, and similar maps are being made of Crown timber reserves. All possible information is being secured and incorporated in the maps as to sources of danger from nearby settlements, from logging camps or from engines; all of which is being indicated in the maps.

It is expected that when the next close season for setting fires commences on May 1st, 1913, the Forest Branch will be in an excellent position to handle its work. During the winter the permanent men in the employ of the branch will be employed in making roads wherever they are found necessary, on account of the vicinity of danger points and the possibility of fire being difficult of access. Posts of observation are also to be established, from which rangers will be able to keep watch over the forests and detect fires instantly. The rangers will also take their share in the campaign of education, the object of which is to teach the public the importance of exercising the greatest possible care in setting fires and extinguishing them.

Protecting Forests From Locomotive Sparks

An interesting article was printed in the Canadian Forestry Journal for May and June, 1912, translated by Elwood Wilson from the German by Dr. M. Kienitz, royal forester and professor of forestry at the Forestry Academy of Eberswalde. The article is too long to be reprinted in entirety, but the following extracts show the nature of the protective belts through the woodland, which are advocated by this author:

A crown fire can only continue to burn if the ground fire follows it and if the flames can continually rush up the trees. If the ground fire loses combustible material over a wide strip the top fire goes out. On these facts are based our methods of fire-fighting. * * *

In well regulated forests it is not sufficient to make rules for extinguishing fires, but means must be taken to see that no fires start. Police and legal regulations practically prevent fires started by human agency. In countries like Germany, where the knowledge that it is necessary to protect and care for the forests has penetrated to practically every class of the population, it has become possible steadily to decrease the number of fires set through malice and carelessness. Regulations requiring every dweller near a forest to help fight fires without pay are willingly obeyed by the majority, and in countries where conditions are as favorable as they are in Germany the number of fires would yearly diminish were it not that one circumstance increases them.

The Railway Danger

This is the growing number of new railways through the forests and the steadily growing traffic on those already built. Every engine using a fuel which throws off sparks (coal, peat, wood, etc.) is dangerous. In the pamphlet published by the Royal Prussian State Railway Commission in 1901, treating of the Prevention of Forest Fires, it is especially stated that, in spite of all efforts to the contrary, engine-builders have been unable to devise any practical means to prevent sparks being thrown off by locomotives. They have succeeded in making fire-boxes tight, which prevents the dropping of coals, but these latter are not very dangerous, falling, as they do, on the track. It is the glowing sparks whick fly from the smoke stacks which are especially dangerous and can not be held back without interfering with the draft; this is especially the case with fast trains. * * *

Nt is therefore necessary to protect the track on both sides by some arrangement which will automatically prevent sparks, thrown out by an engine, from setting fires. It has been proved by experience that keeping the soil broken up and bare is a certain means of preventing the spread of fire. The danger from sparks is in proportion to the size of the redhot particles, the amount and direction of the wind and the inflammability of the ground-cover.

The larger the sparks the more likely they are to start a fire, but the shorter the distance they are carried, the distance depending on the velocity of the wind; but the danger sparks, thrown out by an engine, from setting fires. * * * It is always greatest near the track. * * *

The conditions are quite different if the railway crosses a wood with highly inflammable ground-cover. There is especial danger for extended stands of pine on poor dry soil.

Protection Strips

If these strips are needed to stop sparks, they must be very wide. A width of 90 feet on either side does not protect, for Burkhard has observed that sparks have set fire 240 feet from the track. But a strip 33 feet wide and a quarter of a mile long contains one acre, therefore a strip 33 feet wide on each side of the track would in some cases increase the danger of fire, as it has been proved that where a railway runs through a forest which lies close to the track there the danger is, on the average, less than when the woods are farther away. If the trees are close the wind is compelled to follow along the narrow lane of the track, while if the trees are farther away the wind can blow from the side and drive the sparks among the trees. To overcome these disadvantages, and to protect the forest from the danger of fire from locomotive sparks, it is necessary to manage the wood near the track, and to prepare a strip on which all fire will die out before it can set fire to the crowns, or kill the trees, and at the same time catch all sparks. The glowing sparks are rather large and fall immediately to the ground as soon as they strike the still air stratum inside the protection stand, just as snowflakes fall behind a hedge or sand-clouds behind fences and grass tufts. The protection strips answer a double purpose. They permit the use of woodland up to the track, even in districts most subject to fires, protect the track from drifting sand, and are relatively cheap to keep up. They consist of strips of trees, 36 to 45 feet wide, which have a bare ditch or path 4.5 feet wide toward the forest, and a strip, 3 feet wide, of bare ground next to the track. The two bare strips are joined by footpaths, kept bare, every 60 or 90 feet.

As mentioned above, every fire starts from a small beginning, which can not harm the trees, and is dangerous only when it has succeeded in spreading. Very often the dry grass or moss on the railway embankment catches, and has quite a large front by the time it reaches the edge of the woods, and that it may not spread over into the wood the edge of the wood is kept bare for three feet. Then the fire goes out. The glowing sparks which fall directly on the strips of wood beyond the first bare place can start only small fires, and if these spread they must die out on reaching the second bare strip of 4.5 feet, or one of the cross lanes.

Wooded Strips to be Narrow

Care must be taken that the fire on the protection strips never reaches the size of a crown fire, and thus spreads over the bare strips. If there is not much fuel on the ground a fire 36 to 45 feet from its origin is not high; height comes only when a fire has reached deeper into a forest, over a larger surface, which much increases the heat. The amount of inflammable material on the protection stand, both on the ground and above it, must be kept down as much as possible; all dry branches, weeds, juniper and other inflammable objects must be removed; suppressed and dry branches of the trees up to breast-height must also be pruned off. Only the green branches on the edges of the stand must be kept as near the ground as possible. The closes the green branches are on the side toward the track, the better the protection fills its second important purpose; i.e., to stop the lighter far-flying sparks.

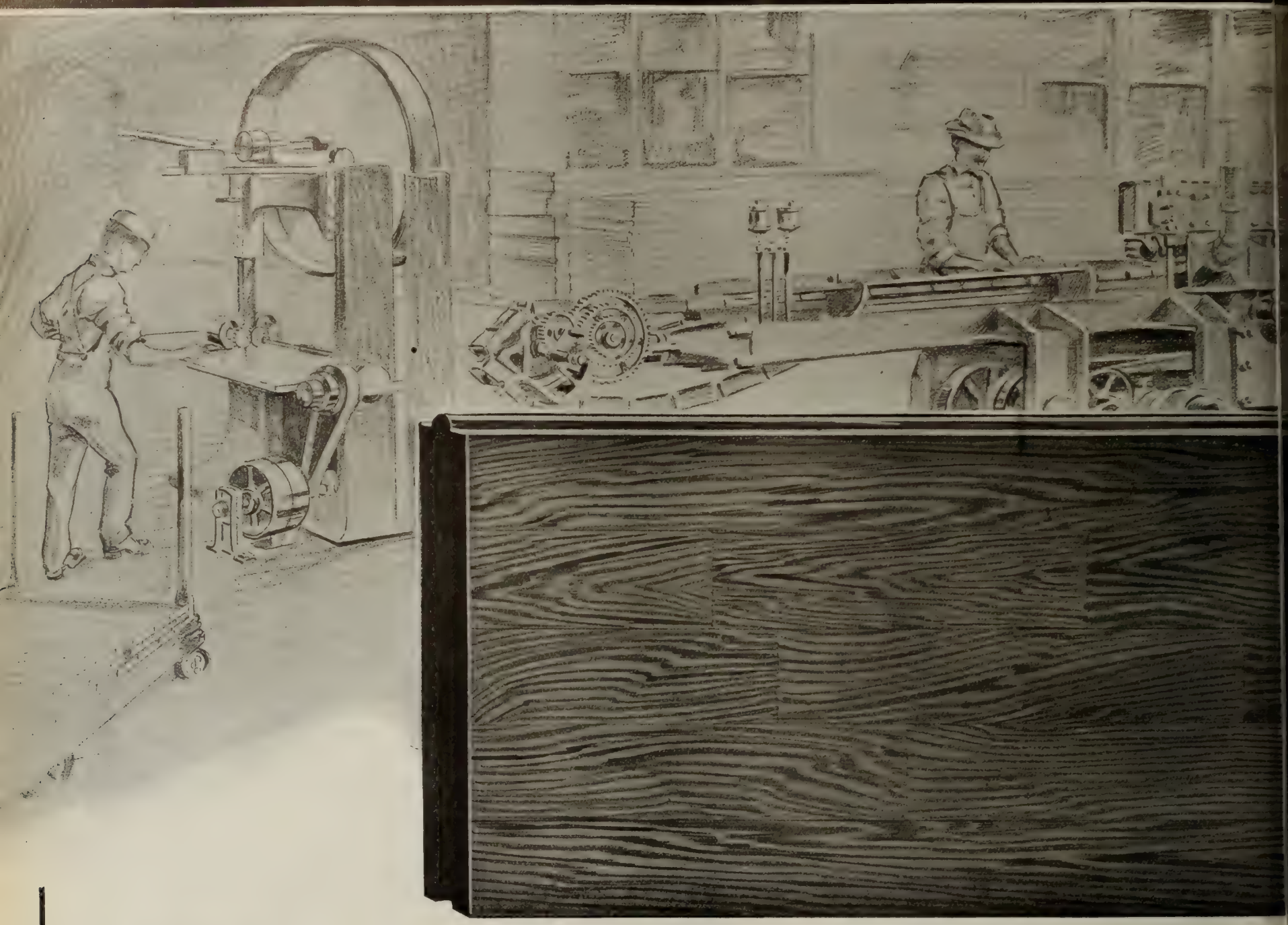
To attain this end, the stand on the protection strips must be closed and without large gaps; a stand which is too thick is not favorable, for between the close standing trunks the flames easily rise higher than where the trees are not so close, and crowded trees do not develop good crowns.

Since very old stands become too thin and the high trees are likely to be thrown on the tracks by storms, or at least may damage the telegraph lines, it is necessary to choose a short rotation for protection strips. In determining this rotation the first consideration is the purpose of the protection stands; the second is the yield. The rotation of strips in pine on sand must be between 60 and 80 years. A too short rotation is to be avoided, for a strip only becomes of use when it reaches a height equal to that of the funnel of the locomotive. * * *

Cuts, Curves and Fills

The danger is especially great on the convex side of curves. Often here the direction of the railway is the same as that of the prevailing wind, while in the curve they do not coincide, with the result that the sparks are thrown in large numbers against the protection stands. It is at such places that the stand must be close, and the trees of ample height, for the number of sparks makes no difference, as even a rapidly passing train can not send out enough to set fire directly to the crowns.

The danger is also that when the line passes along a high fill, where the full force of the wind strikes the funnel. It can not be denied that in such places the sparks can fly farther than in a level section, because they take longer to reach the ground; but the danger is not so great as might appear from a superficial consideration. The wind can throw the sparks into the wood only if it strikes the railway at an angle; and when it reaches the lee side of the embankment it fails, carrying the sparks down with it, and these fall faster and reaching the still air rapidly settle to the ground. Since in railway fills flat slopes are usual, 3 feet rise to 6 feet horizontal, so the protecting strips begin at a considerable distance from the track and run back with every 3 feet rise of fill 6 feet farther from the track.



LONG and WIDE STOCK MADE UP FI

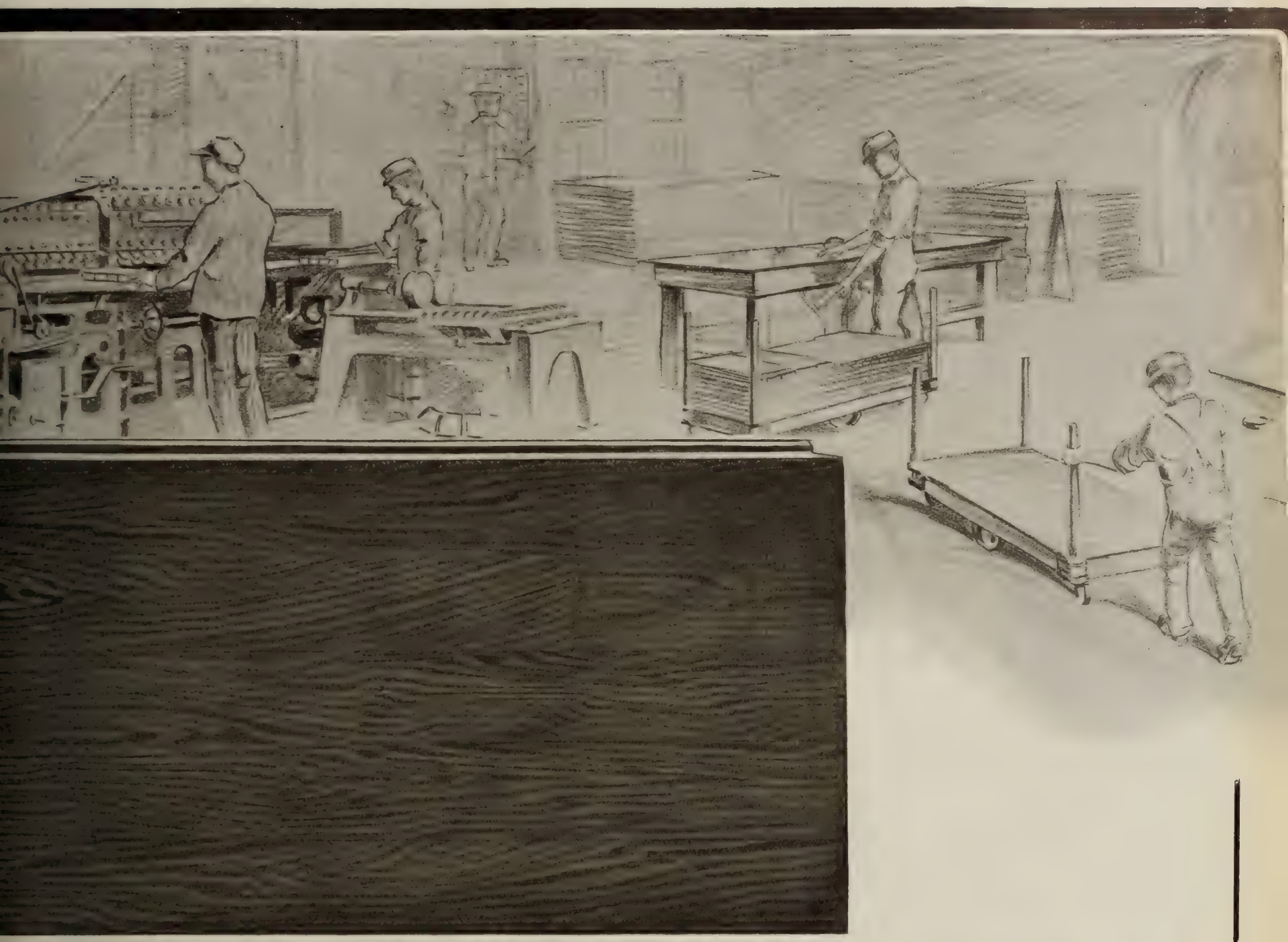
Primarily, the original object of the Linderman Automatic Dovetail Glue Jointer was the building up of wide stock from narrow material, but due to the improvements made in the machine during the past few years, we are now able not only to make wide stock from narrow but to build up a composite board from short narrow lengths, making it as strong or stronger than the long, wide one piece stock.

In most flooring plants throughout the country, there is a large percentage of waste due to defects in the lumber or to defects developed in milling the stock. From 75 per cent. to 80 per cent. of this waste can be utilized by installing a Linderman Machine. If the long stock which has a defective tongue or groove, is laid to one side and not cut up, and the short pieces, after the knots or other defects are cut out, are also saved until you have accumulated from 5,000 to 10,000 feet, this stock can then be run through a Linderman machine. A boy places a number of these short lengths together until they make a strip of any desired length up to 16 feet, the butt ends having been trimmed true when the defects were removed at the butting or swing saw. When a truck of this stock sixteen foot in length is ready, it is moved to one end of the machine. The operator from the other end feeds in the defective 16-foot strip, while from the opposite end is fed a series of the short lengths whose total equals sixteen feet. These two strips are then joined and glued in the machine, the gauge being set to clean off the tongue or the groove as the case may be. To this can be added, either another row of short flooring strips or another one of the long defective lengths. After the binding strip is added, it makes a solid, compact board that will not twist or warp and yet have the same, if not greater strength than though it were wide stock.

This operation has not spoiled the face of the flooring, although at various points it may show a glue line so that it will probably be necessary either to run this stock through a sander, or to send it through a surfacer and clean up with a 1/64-in. cut.

The next problem is the sale of the article. Throughout Canada there are many cheap houses being built and there is no

CANADIAN LINDERMAN CO



M SHORT AND NARROW MATERIAL

reason why such a product as this cannot be sold at $1.00 to $2.00 less per thousand than though it were the longer stock. There cannot be any objection to using the shorter lengths of flooring, built up in this manner, in the cheap houses, for the reason that it has been the custom for years in the high grade houses to use hardwood flooring as short as 18 inches. Or, this composite flooring can be sold as a sub-floor in the higher grade houses where they intend to lay the thin hardwood flooring. It can also be used for partition purposes, sheathing and in thicker stock for barn and factory flooring.

The lumber manufacturer having shorts and short shorts and other cuttings no matter of what width lumber, can likewise use a Linderman machine to work up this product into a composite board which may be of any width, 12-in., 16-in. or even wider. This product can either be milled and converted into shiplap or used for sheathing or partition work or as a sub-floor.

The same machine which will do the above work, will also take 2-in. x 4-in., converting them into 4-in. x 4-in., 4-in. x 6-in., 4-in. x 8-in., 4-in. x 10-in., or 4-in. x 12-in., or building up the 2-in. narrow stock into wider widths.

The cost is very small when the results obtained are considered. On the flooring proposition, assuming that the average length of all stock is 30 inches, except that of the binding strips, it is possible in one day to turn out from 8,000 to 10,000 board feet with a pay roll of four men on the machine and one man to lay out the strips to length before they come to the machine, giving an average pay roll in the West of $13.00 a day or of $10.00 a day in the East. This would make the cost $1.00 to $1.25 per thousand board feet.

For this product, most manufacturers are now obtaining but $2.50 to $3.00 a wagon load, which will equal 600 to 800 board feet, while for such a product as this they should obtain within $2.00 of their regular price for flooring.

By sending us samples of your waste, we will show you the results.

PANY, LIMITED

Works at : WOODSTOCK, ONT.
MUSKEGON, MICH.

How to Cut Hardwood with Rapid Feed

The Problem of Securing Speed and Maintaining Quality—Importance of the Skilled Machinist—Salient Features in Successful Operation

By H. E. Miles.

Instructive Advice for those who are satisfied with nothing but the best results in manufacturing Hardwood Lumber.

WHILE we sometimes feel proud, and rightfully, too, of the wonderful achievements attained in modern saw milling, we must not forget that there are wide fields ahead for improvement. Although we have many well-equipped mills under qualified management, we also have many which are not. The popular idea has never been progressive. The great achievements have been accomplished on the part of a few, and such is as true in saw milling as in any other industry.

The average mill is so poorly equipped, and so poorly manned, that the manufacture of hardwood by such is not a success. This is not only true of small plants, but often of those having several band saws, gang edgers, trimmers, slashers, etc., etc.

It is apparent to all that if one saw can be made to do the work of two, the cost of manufacturing is greatly reduced. Only about half as many men need be employed. This is not only possible but probable. With the modern transfer and conveyor system a single gang of men is able to care for much more lumber than is being produced by the average single mill. In large mills we often see one edger edging the product of two band saws. The chief factor in increasing the product, therefore, is the first or main saw.

People are too often content to do as they see others doing. The average millwright, sawyer, and others employed to operate, learned about all they know during the first few years of their time spent at such work, settling into a certain rut, there to remain, and any progressive idea is received like that received by the one carrying the stone in the bag. However, there are those who will sit up and take notice, being progressive and teachable. With this class of men and a saw properly made, and properly installed, we can saw hardwood, producing perfectly manufactured lumber, faster than is known to the average miller cutting pine. The writer has been an eye witness of this and therefore knows its possibility.

While the band saw has great advantages over the rotary, in that it can be made to cut both ways, beside a great saving in the saw kerf, it has yet to pull off its coat and quicken its step to make hard maple cuts much faster than the well-installed, properly-built, circular saw, as we shall presently see.

This article is written especially for the benefit of those who are yet running the rotary saw, and who may believe that hardwood must be sawn comparatively slow to secure good lumber, since many such have extensive hardwood limits available.

Fine Machinery a Requisite

The first important fact to appreciate is that the saw mill is entitled to as fine a grade of machinery as can be produced. While this statement may need qualifying in a sense, when comparison is made with the mechanism of a watch, it is, in a sense, very true.

The scientific principles on which a circular saw works provide an intricate study which has not yet been exhausted. A mandrel of sufficient size to stand the strain should be set in large bearings, babbitted with the best metal obtainable. Such bearings should be fitted by one who is skilled in the art, to secure fine work. However, any one can be so skilled if possessed of a little tact, who will make a careful study of the principles of fitting heavy fast running journals.

It would involve too much space to give detailed instruction how to do such work. The millwright or machinist must be able to do that, and should exercise more care than is usually done on mill machinery. Many machinists have the idea that any old way will do for a saw mill. This idea must be discarded.

The saw collars must be shown to be flat by responding to a machinist's straight edge, except that the one on the board side should be slightly relieved within about an inch of the rim to the centre. Then if the foundation of the mill is solid, and the track properly lined with the frame, the owner may expect wonderful results in his favor. A saw which may be made to special instructions should be lined nearly straight with the carriage. When things are right, a very little lead is required. When using imperfectly built machinery a large amount of lead is needed to hold the saw in the cut. A saw with improper tension, and not in proper condition, requires two sets of guides. This is not in keeping with modern milling.

The saw makers have made a study of producing saws adapted to all conditions, but these are of necessity built upon general principles. The saw makers have mastered their art well. They have published leaflets and books instructing their customers how to utilize the knowledge gained. With such knowledge of general principles, I propose in this article to combine other knowledge gained by practical experience.

Relation of Saw Speed to Feed

It is a well established fact that after a certain speed is obtained, to increase the speed of a saw it is necessary to have a lighter feed. This is owing to the fact that to a great degree the feed which a saw will stand is determined by the stiffness of the plate. Hence when a saw is hammered to run at a higher speed than the normal which is designated by the saw makers as standard speed, it becomes too limber to stand as high a feed. Then it is up to the operator to judge which is the best proposition to adopt; to run a lower speed and maintain a heavier feed or a higher speed and a lower feed. While 9000 feet at the rim is adopted as the standard speed for the circular saw, by most makers, many are the speeds run by the multitude of mills operating. This is quite right, for the work must be regulated according to the power available, but when one is probing to get all that is possible out of a saw, it is taken for granted that there shall be no lack of power. Hence we shall confine ourselves exclusively to the question, How can a saw be made to do more work? Or to express it better; how can the cutting capacity of a saw be increased?

Now, having all parts of machinery in connection with it as perfectly made and installed, as possible, we will be able to depart from the general principles and order a saw to our special liking, having a much greater cutting capacity than can be otherwise produced. Thus we come to the question; what is the most practical speed for a saw cutting hardwood, to accomplish the most, under favorable conditions? This can only be answered by a careful study of the principles governing that particular, simple appearing, piece of steel for which all the other machinery in the saw mill is built.

We first find that while a saw having no tension will run at a slow speed and make straight cuts, to run at a speed sufficient to be of any practical service it must have tension to enable it to stand erect. Or, to more properly express it to one unacquainted with the technical terms, a saw must be loosened near the center by a process of hammering to allow for the rim expansion when running at a very high speed. Each saw must possess an amount of tension adequate to the speed it is required to run, and it follows that after a normal amount has been given, if given more, the plate will be too limber to stand any feed sufficient to enable the saw to do as much work as it might if it contained less.

Normal Speed 9000 feet at the Rim

The saw makers have established the fact that under ordinary circumstances, 9000 feet at the rim is the most practical speed. However, we find that by making slight changes in the construction of the saw, and by exercising more care in its management, it may be made to run at a much higher speed, and stand a heavier feed than has formerly been known, at least by many of those operating large plants. By actual experience the writer has found that it is much easier to make good lumber with such a saw than with one which is only nominally speeded. Many think in running "gun shot" feed that a heavier gauge is required. Well it might be if we were to follow the old idea of sustaining the feed by the stiffness of the plate, and volume of steel; but the saw which we are attempting to describe is not a heavy gauge saw. If we pause to consider, what do we gain after a normal amount is attained, in adding one or more gauges to the thickness of a saw? This only necessitates a wider swedge increasing the strain on the rim, which counterbalances all that might be gained by a greater volume of steel. Never order a saw thicker than standard gauge. Rather order a thinner gauge. Then since each tooth can do only a certain amount of work it should contain as many as can be made without diminishing the throat room necessary for the clearance of the saw dust. Keeping in mind the fact that we are to cut hardwood, having plenty of power available, we find as a rule that about an eighth of an inch is what a tooth can stand to chip when filed thin enough to cut easily. Here is where a saw's cutting capacity is often reduced, in not being filed tapering enough. The teeth are often left too blunt.

Of course in frozen timber the angle on which they are filed must be more obtuse, but not so obtuse as they are many times rendered.

The Best Class of Saw to Use

To obtain the results above mentioned we have found that the 50, or 52 inch saw is a very practical dimension, in that it is large enough to saw the majority of logs in the east, and, should there be larger ones in stock, a top saw should be installed for the purpose of completing such cuts as is necessary in manufacturing the same. A larger saw than 52 inches involves many disadvantages. Hence the order which has won the most success is for these dimensions, although a smaller saw is preferable if the logs to be sawn are not too large. However, the best results known to the writer were obtained by the use of a 52 inch saw, 7 and 8 gauge, containing 60 teeth; 9/32 inch swedge. The reader will note that this is a gauge thinner than standard even, for a saw of that diameter, but such a saw stood perfectly erect running at a speed of 850 revolutions per minute, or 11,571 ft. at the rim; under a feed of seven inches to each revolution, while making ten inch hard maple cuts. We believe no better manufactured lumber was ever taken from a saw. We will see by a bit of reckoning that such cuts were made, twelve feet long, in 1½ seconds of time. The sawyer found no trouble in maintaining an average feed of at least 4½ inches throughout the entire stock of maple, birch, and beech, many of which had lain in the sun becoming very dry and hard.

This saw was hammered to run at a speed of 800 revolutions allowing nothing for slack in the cut, and there should be none. However, owing to the fact that, as a rule saws will stand to run at a higher speed than that for which they are hammered, it was run, as we observe, at a speed of 850. This was planned, when the order was given. The speed should be uniform, and if supplied by a high speed automatic engine of sufficient capacity, there will be practically no slack. A good automatic engine will not vary over 2 per cent. when connected with but one saw, although this is very trying to the governing mechanism. Of course in double or triple mills where much machinery is in constant use rendering the load more even, a throttling engine would be quite satisfactory. Not so however, in a single rapid cutting mill. No matter how large a capacity an engine may have, no throttling, slide valve engine can supply an even speed where the load varies so quickly.

Centrifugal Force an Important Factor

It will be seen that by the methods here described, we are able to maintain the feed more by centrifugal force, than by stiffness of plate and volume of steel. This point is of vital importance. While it is apparent that only a slight change has been made in the construction of such a saw, from that outlined from general principles by the saw makers, it is also apparent that the result is quite marvelous, in that an excessive feed is maintained while running at a very high speed. But in reviewing the many little advantages gained it will be more easily understood.

First the mandrel and saw is in perfect condition, involving no unnecessary friction, second the comparatively thin plate allows the use of narrow swedge bits relieving the saw from excessive strain at the rim, thirdly the teeth are squarely filed and given as much pitch as they will stand, which also relieves the strain on the rim of the saw, and fourthly being relieved from the many encumbrances which attend the average saw, its stiffness is maintained, as we have seen, more by centrifugal force, than by stiffness of plate. Hence it can be run at a much higher speed.

At this juncture we would mention the fact that such a saw requires but one set of guides which may, and should, be placed so close to the plate that the clearance is hardly visible to the naked eye. Not that we would infer that the guides should be used to restrict the saw in its natural course, but to show the proficiency which can be easily attained and as a hint that their use is often abused.

This standard of proficiency is more easily preserved than any other. There is no advantage in plodding along in a haphazard way, thinking that to maintain efficiency requires large capital and closer attention. It only requires a little knowledge, and application of a few principles. When paying out money to a machinist insist that he render fine work. Let him know that you know that a sixty-fourth, or a hundred-and-twentieth part of an inch is altogether too coarse a fraction to be considered in connection with much machinery for even a saw mill.

With such a saw in connection with a good system of live rolls and transfers, we have found it very easy to cut 3000 feet, of one inch hardwood lumber per hour from ordinary twelve foot logs, turning nearly all such logs five times. This is not the fastest record however, but we care nothing for them. We must consider only those which may be practical. Those which may be maintained as an average. Such only has the writer endeavored to give the reader in this article.

Results of Structural Timber Tests

Valuable Information Published by the United States Forest Service—Tentative Grading Rules put Forward

A most interesting and valuable publication has recently been issued by the United States forest service upon "Tests of Structural Timbers," prepared by McGarvey Cline, director of the Forest Products Laboratory of the United States, and A. L. Heim, Engineer in Forest Products. The publication contains a great deal of information for all who make use of structual timbers, exclusive of round timbers and other special forms. The results given will be of definite value in determining working stresses and proper factors of safety in connection with the design of timber structures; in studying the relation of the physical characteristics and defects of timber to its strength and other mechanical properties; and in devising standard specifications and grading rules for different forms of structural timbers.

The species of timbers tested included the following: Longleaf pine, shortleaf pine, loblolly pine, Douglas fir, western hemlock, western larch, redwood, Norway pine, tamarack, red spruce and white spruce.

Generally speaking these timbers are divided into three classes, viz.: The southern yellow pines, including the first three in the above list; timbers of the Pacific coast, including the next four in the above list, and timbers of the New England and Lake States, including the last four in the above list. The bulletin contains a great deal of information regarding the actual results of tests and a number of excellent illustrations in connection with the statistics presented.

In a section devoted to the moisture content and the rate of seasoning the following general conclusions are given:

(1) In general, timber 8 by 16 inches in cross section must season through two summers before it reaches a thoroughly air-dry condition.

(2) The weight of thoroughly air-seasoned timbers will vary appreciably during the year, due to the alternate evaporation and absorption of moisture. This change in moisture content is accompanied by a corresponding shrinking and swelling, which tends to increase the size and number of checks formed through the seasoning process. These changes, however, do not seem to affect the interior of the timbers.

(3) If seasoning is started in the hot summer months the loss of moisture is at first very rapid, even though the timber is protected from the sun and wind. The loss in weight in a stringer 8 by 16 inches in cross section and 16 feet long in three months varies from 40 to 60 pounds, the loss being proportional in a general way to the amount of sapwood the timber contains. Checking is less serious, however, when the timbers contain a considerable amount of sapwood than when they are practically all heartwood.

(4) The best results are obtained when the air seasoning is started in the late fall or early winter months. At this time of the year the air is usually moist enough to prevent rapid drying on the surface, and, in consequence, serious checking.

(5) The absence of shrinkage in redwood timbers is very noticeable, although redwood contains a large amount of moisture when cut. On account of its low-shrinkage factor it can be seasoned without serious checking.

A comparison of the results of tests on air-seasoned material with those on green material shows that, in general, all of the mechanical properties are increased by seasoning. Increase in strength is especially marked on small pieces free from defects.

Increase in strength of wood fiber due to drying is, in the case of large timbers, largely offset by a weakening of the timber due to the formation of checks. If the moisture content of a seasoned timber is increased it loses strength rapidly, and if thoroughly soaked with water will become slightly weaker than when green. On this account it is not safe in practice to depend upon any increase in strength in timbers due to seasoning. When, however, large beams are seasoned with ordinary care, it is safe to assume that they will not at any time be weaker than they were when green.

An interesting section is devoted to the consideration of the relation of mechanical to physical properties in timbers.

Dealing with defects the bulletin says: "Defects differ from the physical characteristics just discussed in that they are not always inherent in the timber, but depend to a large degree upon the part of the tree from which the timber is cut, upon the manner of sawing it from the log, and upon the method of seasoning. They are, therefore, to some extent at least under the control of the manufacturer."

The defects that influence the strength of structural timber may be defined and classified as follows:

Shakes:—a shake is a separation of one annual ring from another, in some cases only a few degrees in length, in others entirely separating two rings. It is thought that shakes are produced in the living tree by stresses caused by winds and changes of temperature. They are most common in woods that split easily. Shakes are difficult to

detect in green timber, and usually do not become visible until the timber is at least partly seasoned. A shake decreases the strength of timber in proportion as a plane tangent to it approaches parallelism with the neutral plane in the beam, since the more nearly parallel the two planes the smaller is the area resisting horizontal shear.

Checks: checks are radial cracks or splits produced, almost without exception, by uneven shrinkage during seasoning. Occasionally, however, they are present in green timber.

Cross grains: cross grain may be divided into three general classes:

Diagonal grain.—In sawing lumber, if the plane of the saw is not approximately parallel to the axis of the log the grain of the lumber cut is not parallel to the edges, and is termed diagonal.

Spiral grain.—In many trees the fibers composing each year's growth are ranged spirally instead of vertically. The greater the pitch of the spiral the greater is the defect. Spiral grain usually can not be detected from a casual inspection of the piece, since it does not show in the so-called visible grain of the wood, which in softwood lumber is nothing but a sectional view of the annual rings cut longitudinally. A careful inspection, however, of the medullary rays on the tangential or bastard section will invariably reveal spiral grain, since the rays necessarily incline with the spiral direction of the fibers around the trunk, and therefore, in section, appear obliquely on the face of a timber. Spiral grain may readily be detected also by splitting a small piece radially.

Burls.—Burls are local disturbances in the grain of timber, usually associated with knots or produced by the healing of wounds during the life of the tree.

Pitch Pockets.—Pitch pockets are cavities between annual rings, usually filled with resin. They are rarely large enough to affect seriously the strength of structural timbers.

Knots.—Knots are the most common and varied of the defects encountered in structural timber. They are caused by growing or dead branches adhering to the trunk during the process of growth of the tree. If the branches along the lower part of the trunk die and drop from the tree while they are small the trunk will contain small knots near the heart. If the branches adhere to the trunk for a number of years and reach large size the log will contain the large knots that weaken structural timber.

Effect of Knots on Strength

Classification of knots by lumber manufacturers and consumers has usually been based upon the effect of the knot on the appearance of the material, or upon the amount of clear wood that could be obtained when the lumber was cut up into pieces of smaller dimensions. None of the classifications yet devised, therefore, is very useful in grading timbers according to their strength. The effect of a knot upon the strength of the timber depends in general upon two things: (1) The position of the knot in the timber with respect to the distribution of stresses; (2) the firmness with which the knot adheres to the surrounding wood.

The effect of knots on the shearing strength of wood was not investigated directly. The tests on air-dry beams, however, in which pieces would frequently fail in horizontal shear, indicate that knots do not decrease the shearing strength of wood, but rather tend to increase it by acting as pins, thus preventing the sliding of one surface over the other. Knots have also practically no influence in decreasing the strength in compression at right angles to grain, since almost invariably the wood of a sound knot is harder than the surrounding wood.

Because the growth of wood is a process of nature and the inherent qualities of the material can not be controlled, the user of structural timber, in framing specifications and grading rules designed to exclude material unsuited to his purposes, must rely entirely upon his knowledge of the general quality of the wood produced by the species under consideration and upon the visible physical characteristics of timber which in most species can be readily determined are:

1. Color of the wood.
2. Relative proportion of heartwood and sapwood.
3. Position of the pith in the cross section.
4. Rate of growth.
5. Weight.
6. Proportion of summerwood.

Color of Wood

The heartwood of each species of timber has a characteristic color, due to the presence of gums, tannins, and other substances resulting from the process of growth. The sapwood, however, is generally free from coloring matter, and so relatively white. Coloration from such causes apparently does not affect the mechanical properties of the cellulose composing the cell walls, nor therefore the strength of the timber. Marked variation from the characteristic color, however, often indicates incipient decay, especially when it produces a streaked or spotted effect. Some fungi which produces stain do not injure the timber, because they live on the organic matter contained in the sap and do not attack the cell walls. Many of the blue stains noticeable in sapwood are from this source. If, however, abnormal color is associated with punkiness or softness, noticeable by pricking the wood with a knife blade or other instrument, it is safe to conclude that there is decay.

Proportion of Heartwood and Sapwood

Sapwood, except that from old, overmature trees, is as strong as heartwood, other things being equal, and so far as the mechanical properties of timber go should not be regarded as a defect.

In discussing the dry weight of timber it is shown that the mechanical properties of wood vary directly with its dry weight, that is, other things being equal, the heavier the timber the greater its strength.

Referring to the proportion of summerwood the bulletin says: "Summerwood is the dark, relatively dense portion of each annual ring, the lighter, porous part being termed springwood." The proportion of summerwood varies so much in the cross section of a large timber, and defects such as knots and irregular grain influence the mechanical properties to a so much greater extent than does the former, that it is difficult to bring out any definite relation between the proportion of summerwood and the strength of long timbers. It is unquestionably true, however, that the proportion of summerwood is an important guide in judging the quality of timber, independent of any defects which it may contain.

The maximum crushing strength and the modulus of elasticity in bending obtained from small clear specimens cut from each of the large timbers tested bring out the following points:

(1) The modulus of elasticity for the large beams and that for the small clear beams cut from them are approximately equal. This would indicate that the modulus of elasticity is not influenced by the presence of defects in the large specimens. In other words, knots do not affect the stiffness of structural timbers, this factor apparently being dependent almost entirely upon the quality of the clear wood.

(2) The fiber stress at elastic limit for large beams does not vary directly with the modulus of rupture, but is, except in the weakest timbers, practically equal to the crushing strength of the small clear specimens. This indicates that the elastic limit of timber beams is affected only by defects of the most serious character.

For large beams the modulus of rupture decreases as the number and seriousness of defects increases.

These facts seem to indicate conclusively that the stiffness and elastic strength of timber beams are more dependent upon the quality of the wood fiber than upon the number and character of defects which the beam contains. The modulus of rupture, however, seems to be very susceptible to the influence of defects. To be more accurate, the property of a timber beam most influenced by defects is the difference between its fiber stress at elastic limit and its modulus of rupture. This difference might be termed the reserve strength of the timber.

A study of the results secured shows that:—

Of green timbers from eighteen to forty-three per cent. fail first in tension, from 50 to 75 per cent. in compression, and from 1 to 17 per cent. in horizontal shear. Of air-seasoned timbers from 11 to 83 per cent. fail first in tension, from 12 to 76 per cent. in compression, and from 5 to 56 per cent. in horizontal shear. By comparing the percentages for the green and air-seasoned timbers of each species it is seen that seasoning increases greatly the liability of failure in tension and horizontal shear.

Grading Timber Beams According to Mechanical Properties

It is only within the last decade that engineers and architects have given much consideration to the grading of structural timbers. Before that time structural timbers practically free from serious defects could readily be obtained. With the depletion of the virgin forests, however, the quality of structural timbers has steadily decreased, and to-day it is necessary to accept timbers containing defects which were formerly excluded. Lumber-manufacturing associations have done much to standardize the grading rules for different species and classes of timber. In general, however, these grading rules are based entirely upon the number and character of defects, and while they have proved fairly satisfactory in grading sawmill products for the woodworking industries, they are not very effective in separating structural timbers according to their strength.

One of the aims of the bulletin is to apply the results presented to the problem of better grading rules, and the purpose in correlating physical characteristics and defects with mechanical properties has been to show which factors are the most indicative of the mechanical properties of structural timbers. In this connection, the results emphasize the following points:

(1) The mechanical properties of timber beams are dependent upon (a) the quality of the wood irrespective of defects; (b) the character and location of defects.

(2) The mechanical properties of wood free from defects vary directly with its dry weight. The relative dry weight of the different pieces of wood of any species can be approximated by comparing the proportion of summerwood in each.

(3) The only defects which materially decrease the breaking strength of timber beams are the more serious ones, such as large knots and cross grains occurring where fibers are subjected to comparatively high stresses.

(4) All the species tested seem to be subject to the same general laws regarding the relation of mechanical to physical properties.

On the basis of these four general conclusions the attempt is made to formulate a set of definitions and rules which can be applied to the grading of structural timbers cut from any of the species discussed in this bulletin. It is too much to hope that these will eliminate entirely the judgment of the grader or inspector, but they should be of assistance in bringing about a simpler and more satisfactory system of grading than now exists.

Definitions

The term "dense wood" used to define the quality of wood which is desirable in timbers subjected to stresses such as occur in frame structures. The term applies to the wood itself, irrespective of defects. Since dry weight, which is the most accurate index to the mechanical properties of wood, can not be determined from a casual inspection of the timber, dense, or in other words, comparatively heavy wood will be defined as:

(1) Wood that shows more than eight rings per inch, or the rings of which contain more than 30 per cent. summerwood.

(2) Wood which is resilient; that is, which when struck with a hammer or similar blunt instrument, gives a sharp, clear sound, while the hammer shows a marked tendency to rebound and, the wood to recover from the effects of the blow.

These properties are to be judged from an inspection of the cross section of the timber.

The Effect of Knots

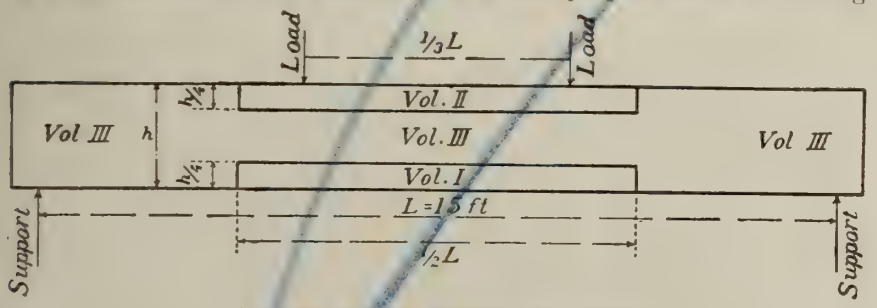
Knots are portions of branches which have been encased in the growing trunk of the tree. In judging their effect upon the strength of a timber it should be borne in mind that the axis of a knot always extends to the centre or pith of the tree, and that the visible part of the knot is a section of a somewhat conical mass of wood, the apex of the cone being at the pith of the tree, and the knot as a whole more or less securely intertwined with the wood surrounding it. A spike knot is a longitudinal section of a whole knot, and a round or elliptical knot is a section, respectively, at right angles or at some oblique angle, to the axis of the knot. Sound knots, as a rule, are stronger and harder than the wood fiber surrounding them. Their effect, therefore, upon the strength of the timber depends to a large extent upon the manner in which they are connected to the surrounding wood and upon the degree of stress to which the connecting fibres are subjected. If knots disturb the grain so that it is decidedly oblique to the edges of the timber the wood will be subjected to stresses in tension at right angles to the grain, the kind to which it offers the least resistance. In such cases early failure in cross-grain tension almost invariably results.

Class 1 knots.—Class 1 knots must be solid, firmly attached to the surrounding wood, and cause no marked irregularity in the grain of the timber. Small spike knots will be included in this class.

Class 2 knots.—Class 2 knots must be solid, but are insecurely attached to the surrounding wood, or associated with burl or other irregularity in the grain.

Class 3 knots.—Class 3 knots are unsound knots; that is, they are softer than the surrounding wood.

Diameter of knots.—The diameter of a knot on the narrow faces of a timber will be its projection on a line perpendicular to an edge



Division of test timbers into volumes

of the timber. On the wide or vertical faces the smallest dimension of a knot is to be taken as its diameter.

Small knots.—Knots less than 1½ inches in diameter.

Large knots.—Knots 1½ inches or more in diameter.

Analytical Study of Failures

To determine the relative importance of defects in different parts of timber beams the beam was theoretically divided into three parts or volumes, as indicated in Fig. 27. Volume 1 includes the middle half of the tension face and extends one-fourth of the height of the beam toward the neutral axis. Volume 2 includes the middle half of the compression face and extends one-fourth of the height toward the neutral axis. Volume 3 includes the remainder of the beam.

Tentative Grading Rules

Grade 1. timbers:—

(a) Must contain only dense wood.

(b) Must not have class 2 or large class 1 knots in volume 1. (See diagram).

(c) Must not have large class 2 knots in volume 2. (See diagram).

(d) The aggregate diameter of knots on any face within the centre half of the length shall not exceed the width of the face.

(e) Must not have shakes or deep checks.

(f) Must not have diagonal grain with a slope greater than 1 inch in 20.

Grade 2. timbers:—

(a) Must contain only dense wood.

(b) Must not have large class 2 knots in volume 1. (See diagram).

(c) The aggregate diameter of knots on any face in the centre half of the length shall not exceed two times the width of the face.

Species.	Number of tests.				Average modulus of rupture per square inch.			Average fiber stress at elastic limit per square inch.			Average modulus of elasticity per square inch.		
	Total.	Grade I.	Grade II.	Culls.	Grade I.	Grade II.	Culls.	Grade I.	Grade II.	Culls.	Grade I.	Grade II.	Culls.
					Lbs.	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*1,000 lbs.*	*1,000 lbs.*	*1,000 lbs.*
Longleaf pine	17	17	....	....	6,140	.....	.....	3,734	.....	.....	1,463	.....	.....
Douglas fir	182	81	80	21	6,919	5,564	4,174	4,402	3,831	2,914	1,643	1,468	1,206
Shortleaf pine	48	35	13	....	5,849	4,739	.....	3,318	3,008	.....	1,525	1,324	.....
Western larch	62	45	17	....	5,479	3,543	.....	3,662	2,432	.....	1,365	1,130	.....
Loblolly pine	104	45	49	10	5,898	4,702	3,416	3,513	2,793	2,258	1,535	1,309	1,149
Tamarack	30	9	16	5	5,408	4,525	3,008	3,151	2,847	2,097	1,276	1,261	991
Western hemlock	39	26	13	....	5,615	4,658	.....	3,689	3,172	.....	1,481	1,360	.....
Redwood	28	21	7	....	4,932	3,091	.....	4,031	2,947	.....	1,097	877	.....
Norway pine	49	17	17	15	4,821	3,764	3,255	3,082	2,364	2,144	1,373	1,204	962

Average strength values of different species by grades. (timbers graded by proposed rules.)

(d) Must not have shakes which extend along an annual ring a distance greater than the width of the piece.

Advantages of Standard Grading Rules for Structural Timbers

Engineers and architects are at present unnecessarily confused by the different grading rules for structural timbers that have been adopted by various lumber manufacturers' associations. Often it is desired to use a new species for structural purposes, but with the present confusion in grading rules it is impossible for the purchaser to select a different species with any definite assurance that the grade of material he selects corresponds in strength with the grade of material he has been using. The tests discussed in this bulletin emphasize that timber beams, irrespective of species, are subject to the same general laws relating to the influence of defects and physical properties on the mechanical properties of the timber, and that all of the species considered in this bulletin can be separated into three fairly definite grades by the tentative rules given. If these or similar rules could be applied universally to the inspection and grading of structural timber it would do away with much of the uncertainty that at present exists regarding the properties of timbers sold for structural purposes, and would to a certain degree stimulate their use. Such rules, therefore, would seem to be to the advantage of both lumber manufacturer and consumer.

Another advantage of a uniform grading rule is that it permits more readily a comparison of timbers of various species and grades on the basis of relative strength. The accompanying table gives the average strength, by grades, of the species studied. These species may be classified in order of strength as follows:

Class 1 timbers.—To include grade 1 timbers for longleaf pine, shortleaf pine, loblolly pine, and Douglas fir. Shortleaf pine and loblolly pine, however, generally contain quite a large proportion of sapwood, which is not nearly so durable as the heartwood. Therefore, unless these species were treated with a preservative they should be excluded from this class and put into class 2.

Class 2 timbers.—To consist of grade 2 longleaf pine, grade 2 Douglas fir, grade 1 western larch and hemlock, and grade 1 tamarack.

Class 3 timbers.—To include grade 1 redwood, grade 1 Norway pine, grade 2 shortleaf pine, grade 2 loblolly pine, grade 2 tamarack, grade 2 western hemlock.

This classification, of course, is based entirely upon the strength developed by the timbers tested, and does not take into consideration other properties which may be desirable for any particular use. For example, the durability of the different species is influenced greatly by the amount of sapwood which the timbers contain. Shortleaf pine, loblolly pine, Norway pine, and tamarack usually contain a considerable proportion of sapwood. All of the other species mentioned in the table can be secured, as a rule, in dimension sizes practically free from sapwood.

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100,000 hewn Cedar Ties for delivery during 1913. State what you can supply and quote price or we will make offer. Box 622, Canada Lumberman, Toronto, Ont. 20-23-39

Wanted

Large quantity of Birch, Maple, Elm, Ash and Basswood, 1 inch and thicker, Log Run, Dry or can place orders for spring delivery. Box 636 Canada Lumberman, Toronto, Ont. 21-24-63

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Five million feet Hemlock and Spruce, 1-in. to 2-in., for delivery next spring or summer. Can use portion now. State what you can supply. Box 640 Canada Lumberman, Toronto, Ont. 21-24-66

Lumber Wanted

Wanted—Stocks of Ash, Elm, Birch and Basswood lumber, all thicknesses, for cash. Send your list and I will look over your stock. Box 632, Canada Lumberman & Woodworker, Toronto, Ont. 21-22-54

Birch Wanted

We desire to buy 100 M. to half million feet 4/4, 5/4, 6/4, and 8/4 log run No. 2 common and better Unselected Birch. For sufficient quantity will send representative to load stock. Terms cash upon inspection. Apply to Louisville Point Lumber Company, Louisville, Ky. 20-23-43

Lumber Wanted

Four, five and six quarter, Spruce, Hemlock and Norway, four, six, eight and ten inches wide, rough, also surfaced. White Pine Mill Culls and Lath. Box 615, Canada Lumberman & Woodworker, Toronto, Ont. 20-1-34

We use yearly five hundred thousand to one million feet of Birch, Basswood and Ash in our business and are open to contract with responsible mill men for same. We would be willing to advance money on the logs and also on lumber as sawn. Write us, Manufacturer, Box 619, Canada Lumberman, Toronto, Ont. 20-37 T.F.

Birch Logs and Hardwood

Wanted from 100 to 300 cars Birch logs, 14-in. and over diameter and 10 ft. and up long, delivery will be accepted up to May, 1913. Desire also to communicate with parties having Hardwood lumber to offer. Box 630, Canada Lumberman, Toronto, Ont. 21-22-50

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4½ in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

White Pine Wanted

I require large quantities of highest grade White Pine. Can also utilize lengths from 2-in. upwards. Please send offers with lowest quotations to Th. Mannborg, Hof-Harmonium Fabrik, Leipzig-Lindenau, Germany. 21-56

FOR SALE—LUMBER, ETC.

For Sale

Ten cars Telephone Poles. Can be loaded at once. For prices, etc., apply to P. O. Box No. 213, Almonte, Ont. 21-22-57

Lumber For Sale

Two cars dry 5/4 Birch.
Two cars dry 6/4 Maple.
One car dry 4/4 Birch and Maple. Mill cull. S. L. Purdy, Coe Hill, Ont. 21-51

For Sale

For quick shipment, 100 M. ft. 2-in. Birch, December, 1911, cut. No. 2 C. & B. at $20 per M. on cars. Farm Point, Que. Hall Bros., 174 Mutual Street, Toronto, Ont. 16t.f.

For Sale

Five thousand pieces small posts, 3-in. to 4½-in. top, peeled and in good shipping condition. The Baker Lumber Company, Lindsay, Ont. 20-23-30

Cedar Shingles

Four carloads XX 16-in. Cedar Shingles, retailing at $1.75 per M. Price in car lots $1.15 at mill, C. P. R. or G. T. R. Lindsay, Ont., for quick sale. Terms 30 days net. Box 279, Lindsay, Ont. 19-22-24

Lumber For Sale

4 cars 1-in. good cedar for boat building.
100,000 ft. 2 x 6 mill run hemlock.
100,000 ft. 2 x 8 mill run hemlock.
4 cars 2-in. white oak, sound and square edge. Apply to Geo. C. Goodfellow.
C Montreal, Que.

For Sale

200 M. feet Hemlock can be cut to your order. Several carloads telephone poles all sizes. Five to ten carloads square sawed birch, beech and maple, from 5-in. x 5-in. to 12-in. x 12-in.—8 ft. to 16 ft. long.

The above for Winter or early Spring shipment. For immediate shipment 1 car 1½-in., 2-in., 3½-in. hard maple. No. 2 common, 75 per cent. clear cuttings at $12 per M. Hall Bros. Manufacturers, Wholesale Lumber and Timber Merchants, 174 Mutual Street, Toronto, Ont. 21-65

For Quick Sale

1,400 acres standing timber.
100,000 Cedar Ties.
100,000 Cedar Posts.
1,000 cords Pulpwood.
Also some pine. Above is estimate.

Owner must sell at once. Price, Three Thousand Dollars on terms or Twenty-eight Hundred spot cash. Contractor will take out and put on lake shore at following prices:—

Hewn ties, 18c each; cedar posts, 5c each. Pulpwood, $3.50 per cord; cedar logs, $7.00 per M.; pine logs, $6.00 per M.

Apply Box 633, Canada Lumberman, Toronto, Ont. 21-22-55

FOR SALE—MACHINERY, ETC.

For Sale—A Snap

Ten sets Sleighs. Runners 4-in. x 7-ft., 5 ft. wide. Bunks 8 x 9 x 8 ft. Bench 9 x 10 x 6 ft. $15.00 per set. Box 603, Canada Lumberman, Toronto, Ont. 20-23-27

For Sale

Two Steam Engines, Boilers, Saw Mill Machinery and Barkers, all in good condition. Apply The East Canada Power & Pulp Company, Limited, Murray Bay, P.Q. 20-22-38

FOR SALE—Planing Mill, Sash and Door Factory, lumber yard and coal business; this is the best opening in Ontario; will sell stock and lease the mill if preferred; will also sell mill and lumber yard separate from coal business. For particulars, apply to Box 625, Canada Lumberman, Toronto, Ont. 21-45

For Sale

⅝-in. Yellow Poplar saps. One carload 10-in. to 16-in. wide. Also one carload 2-in. panel and No. 1 Poplar 12-in. to 24-in. wide.

CHARLES F. SHIELS & CO.,
21-24-60 Cincinnati, O., U.S.A.

Saw Mill For Sale

Huntsville Lumbed Company, Limited, will in the future only run one of their two double cutting Band Mills, which is now cutting fifty thousand feet per day.

They will sell the same with engine, boilers and all other machinery along with building. Also will sell blacksmith's tools and a number of saw-log sleighs and chains.

Huntsville Lumber Company, Ltd.
20-21-42 Huntsville, Ont.

WANTED—EMPLOYMENT

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

WANTED—Position for coming season as mill foreman. First-class references. A hustler. Sober habits. Apply to Box 635, Canada Lumberman. 21-61

Situation wanted, as office or general man. Sixteen years' experience in lumber. Good references. Box 624, Canada Lumberman, Toronto, Ont. 21-22-44

Wanted position as band saw filer to finish this season cut with the consideration of work next season. Can show first-class references. Reply to Box 620, Canada Lumberman, Toronto, Ont. 20-22-21

Wanted

A position as mill superintendent. Have years of experience handling men in Sash, Door and Planing Mill business, can estimate and handle plans of any kind. Reply Box 612, Canada Lumberman & Woodworker, Toronto, Ont. 20-21-32

Experienced office man wishes position as secretary or accountant in lumber company. Has good knowledge of lumber manufacturing, planing mill work, and selling end. Also capable of keeping books, handling correspondence, etc. Good references. Open for immediate position. Box 631, Canada Lumberman & Woodworker, Toronto, Ont. 21-53

Thoroughly experienced office man, Canadian, age thirty-five, married. Expert bookkeeper and cost accountant, sawmill, wholesale and box factory. Experienced selling yellow pine; also seven years experience white pine, United States and Canada. Desire change to healthy location with good schools. Prefer position as assistant manager or office manager. Haven't lost a day in thirteen years. Reply, Box 613, Canada Lumberman, Toronto, Ont. 20-22-31

WANTED—EMPLOYEES

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—Salesman with some knowledge of measuring and inspecting lumber, age from twenty-five to thirty-five years. Apply Box 568, Canada Lumberman, Toronto, Ont. 18-21-2

WANTED—First class man as traveller for selling lumber. Apply Box 628, Canada Lumberman, Toronto, Ont. 21-47

WANTED—First class man to look after and take charge of saw mill and camps in Muskoka, Apply Box 629, Canada Lumberman, Toronto, Ont. 21-48

Superintendent Wanted

We desire to engage a competent superintendent for our general Woodworking Factory. He must be fully capable of shouldering the complete responsibility of the technical management of a good-sized sash and door plant and must fully understand the wholesale production of readymade and portable houses. No "desk superintendent" wanted. The plant is just about to be erected in the Canadian Northwest. Excellent opportunity for the right man. Write, stating full particulars, references, and salary expected. Correspondence treated in strict confidence. The Great West Iron, Wood & Chemical Works, Limited, Prince Albert, Saskatchewan, Canada. 21-62

BUSINESS OPPORTUNITIES

Auction Sale of Valuable Timber Limits and Equipment

On Friday, November 15th, at 2 p.m., in Room "G," King Edward Hotel, Toronto, the timber on the following limits, held under license from the Ontario Government, will be disposed of absolutely without reserve, for the purpose of closing out an Estate:—

The N.E. ¼ Township of Mills.
Berth No. 2 Lount.
Berth No. 3 Pringle.
Berth No. 4 Pringle.

At the same time a complete Camp outfit will also be offered without reserve.

The Limits will be sold either separately or en bloc.

For all necessary information apply to

UNION BANK OF CANADA,
Eastern Superintendent's Dept.,
20-21-36 Toronto, Ont.

Important Sale of Valuable Timber Limits

Sealed tenders will be received by the undersigned up to and including the **20th day of December, 1912**, for the purchase of:

Limit No. 194 of 1873-74—River Jean de Terre—tributary to the Gatineau, containing an area of fifty (50) square miles, more or less.

Limit No. 195 of 1873-74—River Jean de Terre—tributary to the Gatineau—Island Lake, containing an area of fifty (50) square miles, more or less.

These limits comprise some of the best pine and pulpwood areas in the Province of Quebec.

Map showing location of these timber limits and report thereon may be inspected at the offices of the undersigned and from whom further information may be obtained.

The highest or any tender not necessarily accepted, and the acceptance of any tender will be subject to the approval of the Court.

The Toronto General Trusts Corporation,
30 Sigin Street, Ottawa, Ont.
or
Messrs. Aylen & Duclos, Barristers,
Castle Building, Ottawa, Ont.
or
Messrs. Belcourt & Ritchie, Barristers,
Castle Building, Ottawa, Ont.

Dated Ottawa, Aug. 5, 1912. 16-22-35

For Sale or Trade

Two hundred acres hardwood bush, District of Parry Sound. Small mortgage of $1,000 against it. What will you trade?

B. J. McCORMICK,
21-22-49 Welland, Ont.

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest, if your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf.

For Sale

Three hundred acres of good land, well timbered with virgin beech, hard maple, red and yellow birch, ash, elm, hemlock, balsam, spruce, cedar. Largely level. Good main road to Emsdale Station. Two and a quarter miles from station. Price three thousand dollars. Enquire B. Mabee, Box 22, Emsdale, Ont. 21-46

For Sale

Established Lumber Business, with first-class mill, now running full time. Timber limits with 20 to 30 million feet of standing pine timber conveniently located, and all merchandise, etc. Price $55,000. This is worthy of investigation. Address Box 332, Canada Lumberman, Toronto, Ont. 19-22-t.f.

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 115 h.p. boiler, 100 h.p. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water.

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

FOR SALE
FULLY EQUIPPED MILL

$8,000 will buy a mill with machinery for the manufacture of common slotted clothespins, easily converted into a factory for hardwood flooring, broom handles, or spoolwood, with 60 h.p. engine and boiler, saw carriage, rotary saw, trimmers, double edger, planer, drying apparatus, lath machine, gang saws, lathes, power drill, emery stands, shafting, belting, pulleys, carriers, haul up, together with buildings, mill yard, mill dam, at the mouth of a drivable stream, a short distance from millions of feet of white birch and spruce timber, alongside the main line of Intercolonial Railway and within two miles of shipment by ocean steamers.

Apply to B. Carr Harris, Bathurst, N.B., Canada. 21-52

PARTNERS WANTED

The advertiser has just built and equipped the best plant in Canada for the manufacture of doors and boxes, and wants one or two good men with capital to join him, either a man to take the financial end and office work, or one with a good knowledge of the manufacturing end of the business. The trade in boxes will be local, but doors will be shipped to all parts of Canada as well as to England. There is not a large specialized door factory like this one in Canada to-day. The demand for doors is increasing rapidly, and car loads are daily being brought from the States which can be filled by a good Canadian plant. All correspondence will be treated confidentially. Address Box 600, Canada Lumberman & Woodworker, Toronto, Ont. 19-21-25

FOR SALE

A Going Lumber Business Steam Saw Mill and Timber Lands

Six and One-Half Miles from Lavant Station, K. & P. Railway, comprising

Mill and 1,100 acres deeded land, Township Lavant, also license for 9-mile government limit in Township Dalhousie, adjoining mill property. All the timber lands are well wooded and all green bush. Has never been destroyed by fire. Ten to twelve million feet of lumber would be a safe estimate, probably five million feet of this original maple of good quality. Besides there is a great quantity of cedar, also five million feet comprising elm, ash, oak, basswood, poplar and second growth pine. Over 300 M. feet lumber now in yard sold for winter delivery, but would give purchaser some idea of qualities. This output could be doubled this year. Have contracted already for this season 200 M. feet to be taken from the stump and sawn and piled in yard for $8.00 per thousand. Can buy also large quantities from farmers in locality. Mill in good repair ready to start. Good stables, barn and three houses, sleighs and all equipment. No encumbrance. Too much other business to attend to. Price $10,000, half cash and half secured. For more particulars apply R. R. Drysdale, General Merchant, Lanark, Ont. 21-22-64

Baughman's Buyer and Seller

The twelfth edition of the handy book for lumbermen just out. Revised, improved; see the new side tables, the metric system, tapering timber, to figure narrow flooring, moulding and box work, etc., five sections each indexed and separate work. Every page worth the price of the book. The book that talks to lumbermen. Not millions but more than seventy-five thousand copies have been sold to lumbermen. Bound in red flexible leather cover, $2.50 per copy prepaid. Orders mailed day received. Address H. R. A. Baughman, Indianaoplis, Ind. 19-22-18

Notes on Erecting Countershafts

In erecting coutershafts or machines they should be fixed, as far as possible, so that the belts pull on the main shaft in opposite directions, as should too many belts be pulling in one direction and the shaft be of insufficient size or not very strongly supported it will cause a good deal of trouble by springing and will soon get out of line, says the Timber Trades Journal. In fixing driving pulleys on the main shaft, those transmitting the greatest power should be fixed as near the bearings as may be practicable. If hangers from the roof are employed they should be mounted on substantial hardwood plates of a sufficient length and width to give an ample bearing surface to the base of the hanger. Countershaft bearings, as well as main shaft bearings, should be made adjustable for wear and alignment.

We may say, wherever possible, we prefer to use belt gearing instead of toothed, as toothed gearing requires more power to transmit the same effective force as belts; it is also noisy and unsuitable for high speeds.

If from the exigencies of the site or other cause it is necessary to run a shaft at an angle to the main shafting, we prefer a belt led over guide pulleys instead of a cross shaft and bevel wheels, as it is less noisy, much cheaper, and, if well arranged, quite as effective. The best plan with which we are acquainted is to mount the idle pulleys on a spindle fixed vertically in a ball and socket seating, which may be fitted in a bracket attached to a hanger or standard by prolonging the end of the spindle and fitting it with a screw safety washer and nut; the spindle and pulley may be set at any desired angle. The spindle carrying bracket should be arranged with a vertical adjustment on the hanger or standard. The ball segment can, of course, be turned round as may be necessary, and with the plan we have described the idle pulleys may be adjusted to suit any position of shaft, thus obviating the construction of a special set of hanger or bracket patterns for each separate case, and at the same time ensuring the correct running of the belts on the main pulleys.

All main shafts and countershafts should be carefully tested for easy running at stated intervals, as should they be allowed to get out of line or level a considerable loss of power may go on for a time undetected.

Instead of the ordinary rigid bearings, ball, roller, and ring self-oiling bearings mave of late been introduced with much success, and when properly designed and applied there is little doubt that they effect a large saving in power.

Creosoting Sleepers

In impregnating hardwood sleepers with creosote, one of the most important essential requirements is that they should be grouped according to their hardness, species, the ratio between heartwood and sapwood, and other factors which determine the extent to which they are susceptible to penetration. There is an extreme variability of penetration in different groups of sleepers, and it stands to reason, therefore, that in the work of creosoting a great deal of time is wasted in continuing the process on such as are easily impregnated when they are mixed with species less easily penetrated. It seems to be a pretty general concensus of opinion among timber preservative experts that it is necessary to treat them to the limit of their absorption. While various characteristics should necessarily be considered in grouping, it seems to be the pretty general American custom to group only according to species. After a wood is thoroughly dried it is certainly more susceptible of penetration than a wood which has been but superficially seasoned, and therefore, according to the "Engineering Review," the second wood should be given longer treatment than the first. Instead, however, as stated, the general practice is to separate merely the various kinds of trees botanically. The question of the ratio between sapwood and heart wood has not commanded the attention it merits. No one seems to have been capable so far of assorting timbers of the same species equally seasoned and having similar proportions of heartwood an dsapwood, as to density of ring growth or physical characteristics of the wood affecting the pentrability. According to one authority, the only practical method of grouping would be according to degree of seasoning, and he argues further that this would require artificial seasoning in all cases. This practice is somewhat common in Europe, in addition to which European railroad companies air-season their sleepers much longer before treatment than in America.

Hemlock and Hardwood

Review of the statistics presented at the recent meeting of the Northern Hemlock & Hardwood Manufacturers' Association in Milwaukee, and of condensed figures selected from a similar report made at Detroit in behalf of the Michigan manufacturers, shows a very material reduction in visible supplies as compared with a year ago. The net result as regards hemlock is that for the first nine months of the year there was a decrease in cut of 7 per cent. in the Wisconsin territory, and an increase in shipments of 34 per cent. Stock on hand, October 1, as compared with a year ago, shows a decrease of 37 per cent. The stock decrease as to all hardwoods for Wisconsin is 48 per cent. While the reduction in stock has been more marked in case of No. 3, No. 1 and No. 2 grades show a materially lighter stock in every wood. Wisconsin shows a total aggregate stock of both hemlock and hardwoods of 181,587,000, as compared with 300,982,000 feet a year ago. Michigan shows, as to hardwoods, a total stock of about 40,000,000 feet, as compared with a total stock of about 70,000,000 last year; and in hemlock, taking boards and piece stuff together, a stock of about 63,000,000, as compared with a stock of about 128,000,000 a year ago.

The expected cut for Michigan is not yet at hand. The logging plans for the coming winter in the territory of the Wisconsin association show a possible increase in output of about 355,000,000 feet of hemlock, as against 335,000,000 last season; and about 238,000,000 feet of hardwoods, as against 200,000,000 last season. The pine production will probably drop from 194,000,000 to 109,000,000, or a net reduction of about 27,000,000 feet, taking all the woods together. In view of the present demand for all kinds of wood the statistical situation for both Michigan and Wisconsin is very strong.

Cooperage of Salt Barrels

The manufacture of cooperage for salt is especially interesting to saw mill men because pine staves may be used and because they may be made from scrap material around the mill. Almost any kind of stave can be used, the narrow one is the favorite because it will not "buckle in" when swollen on the inside from the moisture drawn by the salt. This gives the opportunity to use stock two inches wide. Another interesting relation between the salt industry and its cooperage is in the geographical distribution of the sources of supply. The six leading states in production of salt are Michigan, New York, Ohio, Kansas, Louisiana, and California. Each is in or near the centre of a lumber region. The fact that the salt industry is a regular and stable industry that fluctuates very little is again a point of interest.—St. Louis Lumberman.

Review of Current Trade Conditions

Ontario

During the past fortnight practically nothing of interest has developed in the lumber trade of Ontario. In nearly all lines, both of soft woods and hardwoods, the market is strong with an excellent demand and small stocks. This applies particularly to hemlock and the indications are that the situation in this particular wood will become far more acute between now and the time when fresh stocks can arrive on the market next summer. Hemlock manufacturers report that there was a large reduction in the quantity of tanbark taken out this year. Some manufacturers are inclined to advance prices of hemlock but others have decided that it would not be wise at present, as the advantage to be secured would only be slight, because stocks are light and the quantity of lumber which could be sold at an advance would be very small and it would be unwise to risk encouraging the use of substitutes. Most of the manufacturers in Ontario are of the opinion, however, that prices of hemlock will be advanced considerably in the spring. A recent development of some interest in Ontario is the fact that dealers in the western states have shown an inclination to come to Ontario for supplies, the indication being that there is an unusual shortage in the Western States.

The market for hardwoods continues very firm with an excellent demand and stocks are rather low as a result of the difficulty in securing cars for shipment. This latter trouble continues to effect the whole lumber industry in a most regrettable manner. Many dealers are obliged to refuse orders, being quite unable to make any promise in regard to dates of shipment.

Reports from Ottawa state that an active business continues in lumber and that it is quite easy to get good orders, but that, on the other hand, it is very difficult to secure care upon which to make shipments. This situation applies all through the Ottawa Valley and manufacturers and wholesalers are behind in filling their orders. It is a thought that some improvement in the situation may be expected shortly.

Eastern Canada

No important developments are to be reported from Montreal and one can only reiterate the old story, that much good business is being held up on account of the scarcity of flat cars. In spite of this situation it is believed that the present season will have witnessed the largest trade ever handled by Montreal dealers. Spruce is in good demand and prices are high. Stocks of low grades of spruce and pine are scarce on account of the strong demand from the United States. Clapboards and shingles are moving actively and hardwoods are in good demand. There is a good trade in lath and the demand for hemlock is also strong. The export trade to Great Britain is very active and indications are that the year's shipments of pine will show an increase over 1911.

Ground wood pulp is rather quiet so far as immediate shipments are concerned, and some Canadian mill owners have decided to carry over fair sized stocks, to sell during the low water periods in the winter. Canadian newsprint mills are able to dispose of their product easily at good prices. Sulphite fibre is very firm in the Canadian market and the mills are said to be well sold up. Extensive contracts have been made for 1913 delivery at good prices.

A satisfactory run of orders is reported for eastern spruce at New York, both in car and cargo lots. Cargo shipments however, are not so numerous as usual at this time of year. Mill stocks are reported firm, with manufacturers holding out confidently for higher prices. Wholesalers at New York are commencing to feel that they will have to pay the higher prices which mills are likely to require. Yard stocks are fairly large but the assortments rae not so good as usual at this time of year. The strong demand for hemlock at New York continued unabated. Prices are still high, but retailers are quite willing to pay them if they can secure stocks at once. Mill stocks are reported badly broken. A few mills which are in a position to make prompt shipment of staple sizes are doing a splendid business.

At Boston no great amount of new business in spruce lumber is reported. Manufacturers are still holding firmly and are looking for higher prices after the first of November. Frames have not been selling extensively, but in many instances the price is held more firmly than a month ago. Some of the mills are taking nothing less than $25 although buyers are trying to secure stocks at $24.50. Not much business is done above the latter figure. A fair trade is reported in random but buyers are not quite so keen on securing stocks at current prices, as they were a little while ago. The general price asked for 2 x 4's is $22.50, but very few buyers will pay more than $22. Clipped hemlock boards are held firmly at Boston at $23 and sales at $22.50 have been reported in cases where the lumber had already been sold by the buyer or in which he knew that he could secure a higher price for prompt shipment. A firm market continues at Boston for shingles. The general asking price for cedar extras is from $4 to $4.25, with only a slight amount of business at the higher figure. Manufacturers are showing no anxiety about disposing of their stocks. Clears are held at $3.75 to $3.90 and some brands cannot be had below the top price. A good demand continues for lath, the asking price for 1⅝ in. being $4.50 and for 1½ in. $3.90 to $4.

United States

Reports from various points in the United States indicate rather unanimously that the heavy rush of demand from the retail trade which has been in effect since September, has reached its high point for the year and that a satisfactory level of trade may be expected at least until the winter commences. The most urgent demand is felt in the north-eastern parts of the United States, while in the western parts, retailers are not showing quite so much inclination to stock up. Car shortage continues to be a serious factor in trade conditions although it is not so acute in the north as in the south.

Chicago:—The demand for northern pine continues steady and active. Wholesalers report that they are fairly busy. An extensive box trade is in progress and low grade lumber is scarce. Upper grades are firm and moving actively. The hardwood trade continues in satisfactory condition, with prices firm. Most of the large buyers are in the market and are paying the prevailing prices. Quartered white oak is fairly steady. Ash is not in large supply. Birch is moving steadily at good prices. Soft elm and rock elm are steady. Maple is in fair demand. The strong demand for hemlock continues and stocks have been greatly reduced of late. Fairly large quantities of hemlock are arriving by water. The building demand has continued steadily this season. Prices of hemlock are firm. A fair yard business is reported in southern pine although no increase in the movement is noticeable. Red cedar shingles are only steady and trade is quiet. Clears are selling at $3.47 and stars at $3.14, Chicago basis. White cedar shingles are selling steadily at fair prices. Stocks of the better grades are very broken. Lath continue strong and firm in price.

Buffalo:—The lower grades of northern pine continues strong and stocks are so scarce that in all probability high prices will prevail for some time to come. It is expected that low grade stock will advance during the coming year. The upper grades are in good demand with stocks light. Pattern lumber is moving actively. The hardwood trade is active, but is badly handicapped for want of cars. The principal woods, including oak, ash, maple and birch are selling at about the same level as formerly. Hemlock is growing scarcer all the time and the building trade is calling loudly for good stocks. Prices have continued firm at the recent advance. The mills are having difficulty in filling orders and have been declining business even at an advance above former figures. Shortleaf pine is selling actively but great difficulty is experienced in getting shipments. Southern pine is in good demand and is also scarce on account of the shortage of cars. Higher prices are expected. Shingles are reported 10c lower than formerly. It is expected however, that the conclusion of the rail and lake shipments will strengthen the market shortly.

North Tonawanda:—All kinds of northern pine are in good demand and it is expected that the common grades will be scarcer this winter than they have been for several seasons. No. 2 and No. 3 barn were in large supply last season, but on account of the heavy consumption, it looks as though they will be among the shortest at the close of navigation.

Great Britain

The London spot market continues very active and reports are to the effect that considerable progress is being made in catching up to the requirements of the trade, in spite of the great advance which has already taken place in freight rates. The indications are that there will be no weakening during the balance of the year and that prices in general will be more likely to stiffen than to remain unchanged. The deliveries at London docks for the week ending October 5th, amounted to 10,659 standards as compared with 7750 during the corresponding week of 1911. At Churchill & Sim's recent auction sale, a few 3 x 11 first Montreal pine brought £36 5s. for 12 to 16 ft. Thirds were sold at £16. Some 2 x 7 Quebec spruce 8 to 16 ft. firsts, was sold at £10 10s. A lot of 3 x 10 and 11 dry, first Quebec pine, 15 to 16 ft. was sold at £25 and some 3 x 9 and 10 seconds 9 to 13 ft. brought £21. Dry thirds, Montreal pine, 1¼ x 7 and 8, 12 to 15 ft. sold at £12. Rock elm timber 12 and 14, 16 to 21 was sold at 42s. per cubic foot.

Liverpool reports indicate that consumers of timber are commencing to realize that they must pay prices now which they were refusing to pay a few months ago. It is difficult to get tonnage to-

Partial view of booming ground and lumber yards

For Quick Sale

We have the following stock of lumber piled where it is necessary for us to move it quickly on account of our insurance. We offer it at attractive prices for quick sale.

3,500 ft. 5/4 No. 2 shop.
4,500 ft. 5/4 No. 3 shop.
4,000 ft. 5/4 stained saps.
8,500 ft. 5/4 outs from fine com. and bet.
20,000 ft. 5/4 No. 1 mill lumber.
14,000 ft. 5/4 No. 1 barn.
7,000 ft. 6/4 No. 1 barn.
8,500 ft. 5/4 No. 2 barn.
4,000 ft. 6/4 No. 2 barn.
58,000 ft. 5/4 No. 3 barn.
20,000 ft. 6/4 No. 3 barn.
3,000 ft. 5/4 No. 1 box.
13,500 ft. 5/4 x 5-in mill run.
6,000 ft. 6/4 x 4-in. mill run.

Write or wire for quotations

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

A. F. Holden, Pres. J. M. Diver, Vice Pres. and Gen'l. Mgr. E. C. Barre, Ass't. Mgr.

day from any of the spruce shipping ports of eastern Canada. Shippers in New Brunswick and Nova Scotia are reported to have only small stocks and therefore not to be eager to engage tonnage. Under these conditions engagements for future delivery are light and owners are apparently playing a waiting game. The situation therefore, is one which logically persuades the consumer in England that if he wants the lumber he must now pay a sufficient price to cover the increased costs of manufacture and transportation. A few consumers of Canadian pine have been coming into the market with orders. They are at last waking up to the fact that prices have advanced as a result of natural conditions and cannot be expected to decline, now that the season is approaching its close.

The demand for timber at Manchester continues about steady, in spite of the fact that prices have a general upward tendency. Spruce deals are reported to be at the highest price they have obtained in the last 20 years and prices "ex stock" at the docks are now given as follows:—

Average lengths 11 x 3, £12 5s. per standard.
Average lengths 9 x 3, £11 15s. per standard.
Average lengths 7 x 3, £10 10s. per standard.

Scantlings are bringing proportionate prices and indications are that by the spring all these prices will be even stiffer.

The timber market at Glasgow shows no alteration, of late, the quantity of business being fairly satisfactory, with indications of continuing the same. Timber merchants are disposed to increase their holdings in the expectation of higher prices.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Strong Trade Conditions Continue at St. John, N.B.

St. John, N.B., Oct. 23rd; (Special correspondence of the Canada Lumberman):—The wholesale and retail lumber trade at St. John holds a very strong position at the present time. All the stocks of deals, boards and plank have been practically sold ahead, and mills will continue sawing right up to the close of navigation, about December 1st, on these contracts. The prices for stocks have been about as good as any year in the history of the trade. Of course, the first part of the season was dull, but as the summer came along, prices began to advance and trade took on a new spurt, which has lasted right up to date, and will undoubtedly continue to do so for some time. The retail trade has never been better, in fact, at the present time mill yards contain very little low grade stock, which has not been sold. At mills where there are any stocks of low grade being carried it is found on inquiry to have been sold and awaiting shipment. The difficulty in making shipment has been the greatest draw back the lumber manufacturer has met with during the season. In fact, at the present time there are practically no vessels for coastwise trade to be had at this port. Vessel owners apparently do not know what freight to ask and are using different means to compel the shippers to pay exhorbitant rates. It is said that as high as $4.62½ has been paid on cargo to New York from this port, but the lowest offer at present is $4.00 with the person offering the same standing a very good chance that his neighbors will not pay more. Large quantities of laths and long lumber are now waiting shipment for Sound ports and New York. Car business is also good, with foreign cars scarce.

Spruce Boards Sold Ahead

Stocks of spruce boards are quoted for 4-in. and up wide, sound, merchantable stock, at $13.50 per M. at mills, and are mostly all sold ahead.

On short random 2 x 4, 2 x 6, the figure is about $16 f.o.b. cars. For 2 x 8 and up, mostly 2 x 8, the price is $17 f.o.b. cars. This stock would not average more than 14½ feet in length, running 8 to 20 feet long, very little of the longer lengths being put in.

The base price at Boston for any assortment of 8-inch and under in width and thickness, 20 ft. and under, is $23.50, with longer lengths and widths at a corresponding advance. Business is good and nearly all stocks of lumber are taken up as fast as shipped in. 2 x 3 and 2 x 4 sized, is selling at $21.50 Boston. Hemlock boards are in good demand at Boston with no stocks offering; in fact, it is said that hemlock never was so scarce there as at present. $23 is being offered for clipped boards, 10-12-14-16 feet long, with random boards at $21.50, all, of course, planed one side.

New York prices for random still continue strong at $24.50 to $25.00, for stock to average 18 feet or thereabouts, say fifty per cent. 2 x 8 and up; this would leave $17.50 f.o.b. St. John for this stock. Of course, an extra specification of widths and lengths demands a corresponding increase. If it were not for the high rate of freight the manufacturer would be doing a very lucrative business, but the freight is really taking off any advance which he may have figured on getting. Both Boston and New York markets are taking largely two inch with a small quantity of three inch and some four inch.

Laths continue firm and anyone having them to sell can get about $2.65 on wharves at St. John.

Shingles still continue firm with extras at $4.25 in New York. They may go higher as practically all 2nd clears and No. 1's have been taken into consumption here.

Box shooks are very firm for all kinds. In fact, mills cannot supply orders, and prices are advancing with seemingly no let up for a time at least.

The booms of the St. John Log Driving Company at Fredericton will finish rafting on Friday, October 25, when all logs will have been cleaned up on booms. In all about ninety-five million feet have been handled. Many of the men have already left for the woods.

Practically all the mill owners in this section, with the exception of Messrs. Hilyard Bros., who, it is said, will not operate in the woods this winter, are or will begin to operate in the woods in a few days. The cut for St. John will amount to about the same as in 1912, viz., about 100,000,000. Of course, on the upper St. John above the Falls, the St. John Lumber Company will get their usual cut, about forty million spruce and five million cedar, but this does not affect St. John except so far as the logs which get by the booms at Van Buren are concerned. These, if any, go to Messrs. Warner & Company, St. John. All operators at St. John carry out about the same policy year in and year out, viz., to stock enough logs to keep their mills going the season through.

The cost of logs will be about the same as in 1912, viz., $13.00 to $13.50 for short provincial logs, and $15.50 to $16.00 for American logs, delivered St. John, the cost of supplies, wages, etc., being about the same as last year.

Messrs. Tapley Bros., freighters of logs, doing business here for many years, are said to be in financial difficulties, but it is hoped that a compromise may be made so that they shall be enabled to carry on their business.

Ottawa Trade Active—Car Shortage Contines

Ottawa, Oct. 22; (Special correspondence of the Canada Lumberman):—The lumber business continues active here. A canvass taken by your correspondent of some of the leading lumbermen brings out the unanimous testimony that it is easy to get orders for lumber, but hard to get cars on which to ship it to customers. Lumbermen all through the Ottawa Valley are clamoring for cars, but cannot get all they require. Consequently they are behind in filling orders. The Board of Trade is doing all that is possible to relieve the situation by appealing to the Railway Commission to use its influence with the railroads. There are prospects that more cars will be supplied immediately.

Messrs. McAuliffe & Davis, the well-known lumber dealers of this city, who recently purchased eighty-one acres of land at the east end of the city near Hurdman's bridge, will commence work early in the new year upon the erection of large planing mills. They will also put the ground in shape for an extensive lumber yard. Over $250,000 will be spent on the buildings and machinery and the layout of the yard. McAuliffe & Davis already have five lumber yards and three planing mills in Ottawa, but these are not sufficient to handle their increasing business. The site of the new yard is touched by four railroads, namely the C. P. R., G. T. R., C. N. R. and the Ottawa and New York. The C. P. R. is already putting a siding into the site in order to provide accommodation for the preliminary work of preparing for the erection of the necessary buildings.

Some time ago Mr. Jackson Booth bought the Bank Street Presbyterian Church and the land on which it stands. It is understood that he has definitely decided to erect a block of stores on the front part of the valuable site. Whether he will build a new theatre at the rear is yet a matter of conjecture. It is very probable that he will, though, because it is generally understood that if the Russell Theatre has not already been sold to the C. P. R., for a site for an uptown station, the lease of that playhouse will be soon bought out and a general transformation of that part of the city is inevitable, if not by the C. P. R., then by the C. N. R., or the Dominion Government. Mr. Booth is also building a large block of modern stores and

Bridge, Derrick, Dredge —and Scow Timber—

of Douglas Fir CUT to YOUR ORDER on SHORT NOTICE and SHIPPED PROMPTLY

FIR CROSS ARMS

CANADIAN WESTERN LUMBER CO. LIMITED

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FRASER MILLS. B.C.

E. G. FIR FLOORING

Try a sample car of No. 1 and 2 clear B. C. Fir for Doors and Interior Trim

Mail or Wire your Inquiries to nearest Branch Sales Office—

TORONTO	68 King Street East	Hugh A. Rose, Representative
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Mail or Wire HEAD OFFICE, Fraser Mills, B. C.

offices on Sparks street. He decided last week to make the building eight storeys high instead of five, as originally intended. Mr. Booth is spending probably more than any other one man in Ottawa on building in the city.

Some time ago the Canadian railway companies increased their rates on pulpwood from Ontario, Quebec and New Brunswick to the United States border over one hundred per cent. Through the application of the International Paper Company of New York and a number of Canadian companies the Railway Commission ordered last week that these increased rates be taken off until February 4th, when the Commission will hear further evidence in the case and give judgment accordingly.

The companies opposing the action of the railways told the commission there is no reason for the increase. Mr. N. G. Guthrie, of Ottawa, counsel for the complainants, said the old tariffs had been in force for years and the profits the railroads made on these rates should be sufficient. Prominent railroad men, representing the different roads involved, said that before the advance was made shippers were notified and warned to include the increase when making new contracts. The increased rate approximated 1½ cents per 100 pounds from points in Canada to the American border and not to the mills.

Mr. G. H. Shaw, general traffic manager of the C. N. R., said that as far as he knew shippers of pulpwood had no outstanding contracts and therefore, would not be injured by the new scale of tariffs. Mr. F. A. Summerville, of Watertown, N.Y., quickly contradicted Mr. Shaw by saying that he had a contract with a shipper from a point on the C. N. R., that had three years to run.

Freight Rates From the Pacific

At a meeting of the Dominion Railway Commission held here last week a table of comparative rates was presented showing what lumbermen in the United States and Canada have to pay for shipping lumber to different parts of the continent. The following table shows some of the different rates:—

Shingles—Seattle to Buffalo, 78 cents a hundred pounds, compared with Canadian rate, Vancouver to Toronto, 75 cents. Seattle to Philadelphia, 83 cents, compared with Vancouver to Ottawa, 80 cents. Seattle to New York, 85 cents, and Vancouver to Montreal, 80 cents. Seattle to Boston, 85 cents, and Vancouver to St. John, 90c.

Cedar lumber—Seattle to Buffalo, 78 cents, and Vancouver to Toronto, 67 cents. Seattle to Philadelphia, 83 cents, and Vancouver to Ottawa, 70 cents. Seattle to New York, 85 cents, and Vancouver to Montreal, 70 cents. Seattle to Boston, 85 cents, and Vancouver to St. John, 80 cents.

Fir and pine lumber—Seattle to Buffalo, 68 cents, and Vancouver to Toronto, 67 cents. Seattle to Philadelphia, 73 cents, and Vancouver to Ottawa, 70 cents. Seattle to New York, 75 cents, and Vancouver to Montreal, 70 cents. Seattle to Boston, 75 cents, and Vancouver to St. John, 80 cents.

Long timbers, poles, etc.—Seattle to Buffalo, 78 cents, and Vancouver to Toronto, 67 cents. Seattle to Philadelphia, 83 cents, and Vancouver to Ottawa, 70 cents. Seattle to New York, 85 cents, and Vancouver to Montreal, 70 cents. Seattle to Boston, 85 cents, and Vancouver to St. John, 80 cents. Other companies showed that the Canadian rates are considerably lower than they are in the United States. The figures were put in at the inquiry into the Western Freight rates case.

George McLaurin, of Ottawa, head of the firm that bears his name, E. G. Auger, of Quebec; C. H. Griffin, of the St. Maurice Lumber Company; C. P. Watson, treasurer of the Mountain Lumber Company; C. H. Tiffany, manager of the West Virginia Pulp and Paper Company, Harold Goodhue, of the Eastern Townships Lumber Company, and others, gave evidence on behalf of those affected by the increased rates. The railroad officials say they are justified in their action because of the increased cost of operation of their roads.

A Statue to the Late James Davidson

There is a movement on foot here to start a public subscription to a fund which shall be devoted to securing a statute of the late Mr. James Davidson, founder of the Davidson Lumber & Manufacturing Company. For several years Mr. Davidson was an alderman and controller of Ottawa and it is the concensus of opinion that he rendered perhaps greater service to the city than any other man. It is in honor of his work and to keep his memory green that the erection of the statute on the new Plaza is proposed.

Not until a general policy on fiscal matters is agreed upon will the Dominion Government consider imposing a duty on pulp to be exported. This is learned from careful enquiries made on Parliament Hill

Mr. James Lawler, secretary of the Canadian Forestry Association, returned last week from the convention the association held in Victoria.

The Forestry Branch of the Department of the Interior intends to turn some of the forest reserves into public playgrounds. Last summer the experiment was tried at the Turtle Mountain reserve in Southern Manitoba and the result was so encouraging that the idea is to be extended.

So rapidly is the business of the E. B. Eddy Company increasing that the extensive alterations now being made to the plant and offices are being rushed towards completion with all possible speed.

The Rat Portage Lumber Company, Winnipeg, Man., in a letter to the Canada Lumberman, report that just at present shipments are being greatly delayed as a result of the car shortage. The demand, however, is fairly brisk and prices are ruling steady. They report a recent advance of $1.50 per M. on 2 x 4 and 2 x 6 pine dimension and 10 cents per M. on No. 1 B. C. shingles.

Busy Trade Across the Border

The Tonawandas, Oct. 25th. (Special correspondence of the Canada Lumberman): Shortage of cars and scarcity of lumber to fill what few cars are secured is the same old bugaboo for local handlers of Canadian stocks. A car or two may be had if spoken for three or four days ahead which means that there is a big waiting list for cars all the time. Prices are going up and since orders cannot be filled from Canadian stocks, the upward tendency is affecting other stocks, particularly those cut in the south. But the price doesn't appear to cut any figure. It is not unusual to receive an order with the offer of from of from $1.50 to $2 per thousand more than the current quotation for immediate delivery. But there's the rub. There is scarcely any such thing any more as immediate delivery. The railroads hold out little hope of relief until the crops are all harvested in the west and the coal mines stop sending all the coal they can pile into any kind of rolling stock to lake ports for shipment by boat to upper lake points.

Building shows no let up. Retailers say the demand for lumber from building companies and contractors is as strong as at any time during the summer. The particularly favorable weather of the last few weeks throughout the entire state of New York and Pennsylvania has acted as a tonic to all outdoor work and the builders have made the most of it. Everybody is hustling to get structures under way and enclosed before early winter weather with rain and sleet makes it difficult to work out doors. Not even the fact that a presidential election is only two weeks away appears to have the slightest effect on business in the building trades. This is unusual in a presidential year and but illustrates further the fact that the people of the United States no longer fear a change of administration at Washington as they once were accustomed to.

Large Shipments by Rail

During the second week of October the shipments of lumber east from the Tonawandas by rail amounted to 2,800,118 feet as compared with 1,070,000 feet the corresponding week a year ago. Part of the apparent increase over that of a year ago is accounted for by the break in the canal at Bushnell's basin which blocked canal navigation nearly six weeks. Part of the fleet delayed by the break did not clear from the Tonawandas until last week when the break was finally repaired. Boats been passing through the temporary flume now for a week without difficulty and it is predicted that the repairs are sufficient to continue navigation until officially closed for 1912 which it is hoped will be December 1 at the latest, two weeks longer than the usual season.

In contemplation of increasing the capacity of plant and yard, the Wilson Lumber & Box Company of Tonawanda has leased about 200 feet of dockage on Niagara river at First street. This company is a large manufacturer of wood and paper boxes. Its president, Mr. T. J. Wilson, was recently elected president of the Herschell-Spilman Company, a large local concern making automobile parts.

Capt. Charles K. Little, for 25 years prominent in the lumber trade, was buried Sunday from his home in Christina street. Death was sudden. The funeral was in charge of the Masons and was attended by the Elks, Knights Templar and representatives of the Shipmasters Association of the Great Lakes.

J. R. Taylor, superintendent of the Kelsey Lumber Company plant at Charlestown, S. C., has returned to that city after spending part of his honeymoon with his mother in North Tonawanda.

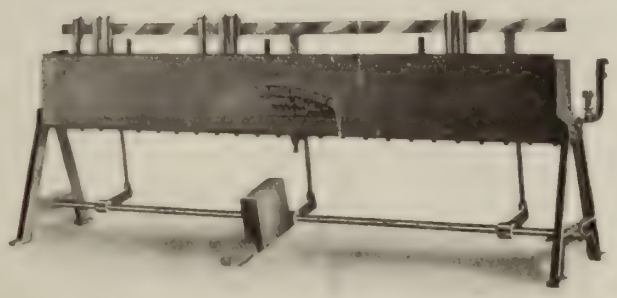
A stubborn blaze broke out in the yard of the R. T. Jones Lumber Company on Tonawanda Island, Saturday, October 12. A high wind that compelled the stopping of all lumber handling in the yards in the morning helped fan the fire into what was for a time feared would be a serious conflagration. The blaze was confined to several piles of four foot white pine shorts and the loss did not exceed a few hundred dollars.

The Mackenzie-Morden Transit Company of Port Colborne is again the owner of the barge Jeanette which foundered in Georgian Bay last August but was raised by wreckers. The latter paid the insurance company $1,200 for the lumber aboard the Jeanette and when the craft was raised sold the damaged cargo for $3,000.

The week before last was a light one so far as receipts of lumber

Look at the Picture!

Look at the Names!



The picture is of our stile gluer.

The names are of some of its users. Some of them have sent in duplicate and triplicate orders unsolicited. Are they the kind that would do that if the machine was not a money saver?

It Glues the Whole Stile in a Second.

Foster-Lotham Mills, Oshkosh, Wis.; Morgan Company, Oshkosh, Wis.; R. McMillan Co., Oshkosh, Wis.; Radford Bros. & Co., Oshkosh, Wis.; Curtis & Yale Co., Wausau, Wis.; Curtis Bros. & Co., Clinton, Iowa; Estate James Davidson, Ottawa, Ont.; Roach & Musser Sash and Door Co., Muscatine, Iowa; Allen Mfg. Co., Shreveport, La.; Rock Island Sash & Door Co., Rock Island, Ill.; Riverside Lumber Co., Calgary, Alta.; Rat Portage Lumber Co., Winnipeg, Man.; Cream City Sash & Door Co., Milwaukee, Wis.; Enochs Lumber & Mfg. Co., Jackson, Miss.; United Sash & Door Co., Wichita, Kans.; Hardwood Products Co., Neenah, Wis.; Vance Redwood Lumber Co., Eureka, Cal.; Chehalis Fir Door Co., Chehalis, Wash.; Farley & Loetscher Mfg. Co., Dubuque, Ia.; Robinson Mfg. Co., Everett, Wash.; Southern Mfg. Co., Gadsen, Ala.; Waco Sash & Door Co., Waco, Texas; Pacific Mfg. Co., Santa Clara, Cal.; Standard Lumber Co., Sonora, Cal.; Geo. W. Smith Co., Philadelphia, Pa.; Fox Bros. Mfg. Co., St. Louis, Mo.; Weed Lumber Co., Weed, Cal.; Cedar Creek Mill Co., Brewton, Ala.

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BORDEN'S

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Evaporated Milk

Is the old reliable, has always taken the lead and always will.

The BEST for the CAMP, the MINE and the HOME.

Distributed exclusively by the Wholesale Trade

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Originators of Condensed Milk and Largest Manufacturers of Milk Products in the World.

"LEADERS OF QUALITY" **ESTABLISHED 1857**

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Schacht

The Truck with Good disposition — built for Canadians with Canadian money.

Lumber Trucks

Are especially designed and built for the Canadian Lumber field—for Camp duty—for the lumber yard—and for retail delivery.

A Schacht Lumber Truck will cut your conveying and delivery expenses in half, and will turn your present hauling losses into profits.

It Builds Your Business Bigger No Matter How Big it is now

We urgently invite enquiries and will gladly give expert advice as to the saving the Schacht Truck will effect in your business.

Schacht Motor Car Company of Canada

Limited

Hamilton **Ontario**

A Few Specifications—

Motor, 45-50 H.P., four cylinders.

Ignition, magneto, with double system.

Oiling, plunger pump in crank case, separate feeds to all bearings, with splash system.

Clutch, cone, thermoid faced, 15½ in. diameter.

Transmission, selective sliding gear, 3 speeds, forward and reverse.

Emergency Brakes, internal, expanding on rear wheels, 18-in. drum. Service brakes on each end of jackshaft.

Frame, rolled steel channel section, 6-inch side members.

Frame, 217¾ in. long, 38¾ in. wide.

Axles, rear, rectangular, 2¼ in. wide, 4 in. deep, drop forged. Front Timken, I beam with solid section through centre, 2 in. wide, 2¾ in. deep, dropped forged.

Bearings, Timken roller bearings in wheels, jackshaft and steering knuckle, annular bearings in transmission.

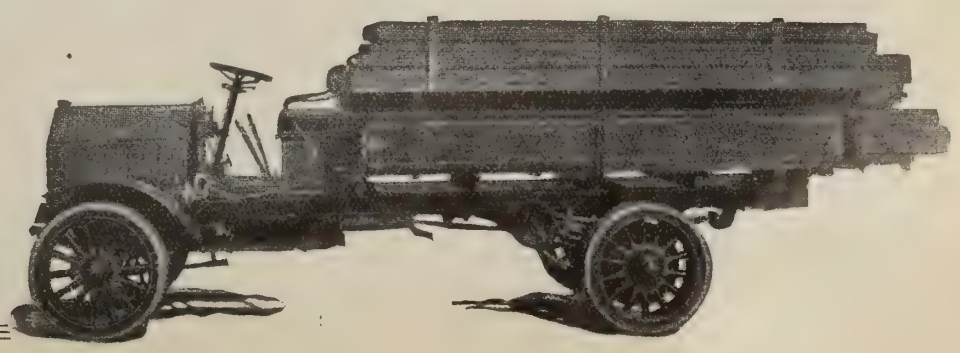
Tires, 36 x 4 in single front, 36 x 5 in. dual rear.

Wheel Base, 144 in.; tread 64 in.

Speed, 10 to 18 miles per hour on direct.

Loading Space, 11 ft. 5 in. back of seat on chassis frame.

Body, to order.



from United States and Canadian ports at upper lake points was concerned. For the first time in the history of the Tonawandas southern pine and cypress receipts exceeded those of white and Norway pine. The month of October as a whole will, however, show a big balance in favor of Canadian, Michigan and Wisconsin cuts. Lumber tonnage is chartered right up to the limit as proven by the fact that rates of as high as $4.50 per thousand are being offered on hardwood cargoes from Duluth.

W. H. Crabb, proprietor of a box shook factory on Tonawanda Island is an applicant in voluntary bankruptcy. His assets are given as $13,584 and liabilities $29,970. The first meeting of creditors resulted in the appointment of J. P. Mackenzie of North Tonawanda, well known as a dealer in Canadian stocks, as receiver. The receiver will continue the business until the election of a trustee in bankruptcy. The petitioner asks that he be permitted to continue, asserting that orders are plentiful enough and the business outlook such as to assure the payment of all indebtedness in a short time.

C. J. Wilkie & Son of Tonawanda are defendants in an action for $3,000 brought by Smith, Davis & Company, insurance brokers, for the recovery of payment on a shipment of lumber. The defendants allege that the shipment was not up to specifications and present a counter claim of $540 for freight and storage charges.

Cars Scarce but Trade Good at Montreal

Montreal, October 25, (Special correspondence of the Canada Lumberman).—The old story continues here, of good business all the way round and a scarcity of cars. Lumbermen state that notwithstanding the small number of cars almost throughout the season, they have done the largest trade in their experience, and that the outlook is distinctly satisfactory. There is a heavy demand for spruce, with prices high. Low grades of spruce and pine are in very short supply, there being a big call for these descriptions for the United States. One wholesaler says that buyers on the other side of the border are so anxious to obtain this lumber that they are willing to have it dressed here and to pay the extra duty. The clapboard and shingle mills report that business was never better; while hardwoods generally, command a very ready market. Lath is also firm, and recently hemlock has been in good request.

Shippers to Great Britain are very busy hurrying forward consignments, present appearances pointing to an increased total of pine exports as compared with last year.

Wood Pulp Market Quiet

With regard to the pulp and paper situation, it is very difficult to sell ground wood pulp for immediate shipment, and the Canadian mill owners have made up their minds to carry over a considerable stock to sell during the low-water periods of the winter months. A contract for about 6,000 tons of Canadian pulp has been made recently, at a low price, and as this amount has been taken off the market, and will go to Great Britain, the market here has been strengthened, but it is still by no means satisfactory. The pulp is the product of a new mill. The flatness of the market is due to the falling off in the demand from the States, where the water powers have lately been very good.

It is reported that newsprint is a little lower in spots in the United States, but in Canada the mills find no difficulty in disposing of their products at good prices. Within five years the production of newsprint in Canada has about doubled.

Price Brothers' new print mill near Jonquiere will start one machine next month, a second in April, and a third in August.

Wayagamack Producing Kraft

The Wayagamack Company are now placing their kraft wrapping paper on the market. The company expect to make fifty tons of this paper per day when fully running.

The Canadian market for sulphite fibre is very firm, and it is said that the mills are sold very heavily. Large tonnage contracts for 1913 have been closed at good prices.

The Laurentide Company, Grand'Mere, P.Q., will start a new pulp digester at the beginning of the year. The production of this digester, thirty tons per day, has been sold for two years ahead.

Mr. John Norris, head of the Newspaper Association of the United States, has been on a visit to Canada in connection with the question of the interchange of pulp and paper between Canada and the United States.

The Bronson Pulp Company, of Ottawa, have started up with three grinders in their new mill. This mill will eventually be of considerably larger capacity, arrangements having been made to manufacture seventy-five tons of ground wood per day in the course of time.

S. P. Musson, Son & Co., Bridgetown, Barbados, report under recent date as follows: Lumberstuffs.—W. pine—the only arrivals during the fortnight is the Schr. "Mersey" from Weymouth, with some 150 m. ft., sold to arrive some time ago. The market is still in a good position, and further receipts should do well. Spruce—The "Mersey" also brought 100 m. ft. which consignees sold at $26 and $21 respectively for shippers and seconds quality. Stocks are light, and further supplies are wanted. Shingles—The market is lightly supplied, and although a few cargoes are known to be on the way, further receipts are needed. Pitch pine—No receipts. Shooks—No arrivals.

London Report from Churchill & Sim

Churchill & Sim in their wood circular dated London, Eng., Oct. 3rd say: Importations from the St. Lawrence during September was—

Pine deals. ..341,000 pieces against 271,000 pieces in 1911
Spruce.. .. ..599,000 pieces against 625,000 pieces in 1911
Birch planks .233,000 pieces against 236,000 pieces in 1911

and from New Brunswick, &c.—

Pine deals. .. 50,000 pieces against 45,000 pieces in 1911
Spruce.. .. ..266,000 pieces against 384,000 pieces in 1911
Birch planks .311,000 pieces against 221,000 pieces in 1911

The importation of Canadian pine deals continues on an ever decreasing scale, and the range of price naturally moves in reverse proportion. The business, however, becomes a very minute one, and it seems to take three buyers now-a-days to buy 150 1st pine deals. Of spruce deals the month's supply has been a small one, and prices have at last responded even in London to the general conditions of cost and freight. In other home markets, more important than London, there has also been a distinct advance of price during the month. Birch timber is short in stock and firm in price, and planks have held nearly up to previous rates. There have been sufficient arrivals of elm and smaller ones of yellow pine timber during the month, which have been chiefly stored in the docks.

The market conditions in London for Oregon timber continue quite satisfactory. The demand has been very insistent during the month, and the fresh arrivals have only added 1,200 loads to the stock. Prices remain at their highest.

Current prices are as follows:

St. Lawrence pine deals, &c., per P.S.H.

1st, bright and dry, regular sizes	£41		to	£52	
1st bright and dry oddments	27	"		30	
2nd bright and dry regular sizes	26	"		29	
2nd bright and dry oddments	18	"		20	
3rd bright and dry regular sizes	15	"		18	10s
3rd bright and dry oddments	12	"		16	10s
4th bright and dry regular sizes	12	10s "		15	
4th bright and dry oddments	9	10s "		12	
St. Lawrence spruce deals, &c.					
First, regular sizes	16	"		22	
Second, regular sizes	11	15s "		13	10s
Third, regular sizes	10	5s "		11	15s
Fourth, regular sizes	9	"		10	
Battens	10	"		10	15s
New Brunswick spruce deals, &c.	9	"		11	
Oddments, battens and fourths	8	10s "		9	10s
Quebec timber, per load					
Yellow pine	120s "			250s	
Oak	140s "			160s	
Elm	130s "			280s	
Birch	80s "			130s	
New Brunswick, &c., Birch per load	70s "			105s	

Canadian Trade in Liverpool

Farnworth & Jardine in their wood circular dated Liverpool, October 1st, say: The business of the past month has been steady, with some improvement in values in most directions. Imports have been moderate, and deliveries satisfactory. Stocks generally are within moderate compass. Ocean freight rates are very firm, and continue to dominate the situation.

Canadian Woods.—Pine timber—Waney 1st class: Arrived freely during the past month to Manchester. A large proportion of this import will no doubt go direct into consumption. Values remain high. Of 2nd class timber the stock is light; values well maintained. Square pine has not been imported; stock is light, and values remain firm. Red pine—No import; values unchanged. Oak—There has been a considerable import to Manchester, largely on contract; values firm. Elm—There has been a small import to Manchester, where there has been a good consumption; stock is light; values continue high. Pine deals have again been imported freely, and in excess of the demand. Stocks have increased to some extent, but are not excessive; values practically unchanged. Red pine deals—There is not much improvement in the demand; values, however, continue firm.

New Brunswick and Nova Scotia Spruce and Pine Deals.—The

"AMPHIBIA"

(WATERPROOF)

Leather Belting

contains more downright

Service

per dollar invested

than any other kind of belt transmission. This has been proven time and again in mills such as yours. Make your next belting order "Amphibia" and you will be highly satisfied.

Remember "AMPHIBIA" costs less per day of service than any other although the first cost per foot length may be higher. Price per foot is no criterion of belt value.

Sadler & Haworth

Tanners and Manufacturers

For Over 35 Years Makers of the Best Leather Belts

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To insure satisfaction---state where belt is to run

import to the Mersey (including Manchester) amounted to 7,680 compared with 7,530 stds. during the corresponding period last year, the greater portion arriving at Manchester. Deliveries have been satisfactory, amounting to 10,810 stds. as compared with 10,830 stds. last year. Stocks are not excessive, being about 2,000 stds. less than at this time last year. Tonnage remains very scarce, even at present extreme rates. Pine deals continue in fair demand at unchanged prices.

Birch.—Logs have been imported sparingly. There has been a fair consumption; stocks are in moderate compass, values firm. Planks have reached this market in fair quantities; consumption has failed to keep pace and the stock is still heavy, although values have somewhat appreciated.

British Columbia and Oregon Pine.—The small import of 9,000 cu. ft. has consisted of lumber. There has been a fair consumption at firm rates, and the stock on hand is moderate.

Liverpool Stocks of N. B. & N. S. Wood Goods

Stocks of N. B. and N. S. spruce, pine and birch at Liverpool and Manchester at the beginning of October were reported by H. W. Lightburne & Co., Liverpool, and John E. Moore & Co., Ltd., St. John, N.B., as follows.—

Liverpool

	Import			Consumption			Stoch		
	1910	1911	1912	1910	1911	1912	1910	1911	1912
N. B. and N. S.				Standards					
Spruce and pine.	5,650	1,070	2,640	3,530	4,100	4,060	9,440	7,250	8,320
				Loads					
Birch logs	60	60	40	140	160	180	220	900	1,140
				Standards					
Birch planks. ..	176	170	164	170	85	79	346	546	867

Manchester

				Standards					
Spruce	14,920	6,460	5,040	7,060	6,730	6,750	22,080	1,870	15,870
				Loads					
Birch logs ..	50	80	80	30	260	180	100	260	500
				Standards					
Birch planks.	91	6	127	176	109	79	752	121	794

Stocks in Manchester and Liverpool Combined

	1908	1909	1910	1911	1912
			Standards		
Spruce					
Manchester.. ...	16,100	16,360	22,080	18,770	15,870
Liverpool	7,650	7,600	9,440	7,250	8,320
	23,750	23,960	31,520	26,020	24,190
Birch Logs			Loads		
Manchester	180	80	100	260	500
Liverpool	760	960	220	900	1,140
	940	1,040	320	1,160	1,640
Birch Planks			Standards		
Manchester.. ...	479	1,309	752	121	794
Liverpool	473	540	346	546	867
	942	1,849	1,098	667	1,661

Cooperage Stock will be Scarce

Chatham, Ont., October 16, 1912.

Editor Canada Lumberman:—

At the present time the demand for cooperage stock in Canada is greater than the supply and consequently considerable stock has had to be imported from the United States to keep the coopers going. This shortage has been caused by the weather during the past summer, which prevented any summer logging operations. Consequently, after the mills cut out the logs that were put in during the winter they have had to remain idle instead of making a fall run as usual. This year has been the worst year in the memory of the cooperage stock manufacturers in Canada for getting out material. Even after the goods were manufactured the continual rains damaged stock in process of seasoning and consequently there were thousands of dollars lost to the manufacturers by the lowering of their grades of staves.

Staves which would ordinarily go as No. 1 stock had to be put into a lower grade for cement or apples, on account of mildew, thus curtailing the production of high class stock to a very great extent.

On account of the manufacturers not being able to do any summer logging, there will be a tremendous shortage in cooperage stock for delivery the coming winter and next spring, and prices will be very high on this account. In fact, it will be hard for manufacturers to get a price high enough for material, to pay for the loss incurred through the weather damaging their stock and leaving their mills idle for want of raw material.

Yours truly,

The Sutherland-Innes Co., Ltd.,

Maple and Hickory Skewers in England

There is a large market in the United Kingdom for skewers made from hickory or maple wood. The maple skewer is what the trade expect to receive from Canada, and they claim that their importation from the United States of this article is very large; Lancashire alone being able to handle, in the assorted sizes, forty car load lots in a year. This line would be well worth cultivating, and there should be scope in many of our mills for a side line that would be profitable, as most of these skewers are made from plank ends.

The following figures, furnished by the Canadian Trade Commissioner at Manchester, give the sizes required, how packed, and quantities of different sizes in cases or barrels, also prices of several sizes that will give a general idea for all sizes. Prices must be quoted c.i.f. Manchester.

Sizes	Price per M.	Packed in parcels of	Cases or barrels containing
4½ x 5/32	1/-	250 each end	40,000
5½ x 5/32	....	100 "	25,000
5½ x ¼	1/7½	100 "	15,000
6 x ¼	1/10	100 "	10,000
6 x 9/32	1/11	100 "	10,000
7 x ¼	....	100 "	10,000
7 x 9/32	2/-	100 "	10,000
8 x ¼	2/2	100 "	10,000
8 x 9/32	2/8	100 "	10,000
10 x 9/32	....	50 "	5,000
10 x ⅜	3/2	50 "	5,000
12 x ⅜	5/9	50 "	5,000
14 x ⅜	6/7	50 "	5,000

British Canadian Lumber Corporation's Fine New Mill

British Columbia can claim the distinction of possessing the largest electrically equipped lumber mill on the North American Continent. This was recently inaugurated by the British Canadian Lumber Corporation, Limited, and is situated at Lu-Lu Island, on the Fraser River, New Westminster, fifteen miles from the ocean, a distance which makes the piling foundation immune from the ravages of the teredo worm. The mill has a capacity of 250,000 feet B.M. per day of ten hours. It is operated by the latest type of electrical turbine engines, generating 3,000 horse power. After the first of next year it is proposed to run a double shift.

The mill is situated on a natural harbor, where the largest ships can come alongside the wharf and receive the manufactured lumber direct from the mill without any additional handling. The electrical equipment was furnished by Allis-Chalmers-Bullock, Limited, who state that it is one of the most complete and modern sawmills that can be designed. The equipment includes a complete log haul, steam log deck, carriages, with the latest improved power setworks, a 9-ft. band mill, a 10-ft. band mill, and all other necessary machinery for the successful manufacture of lumber.

Mr. G. S. Mayes, of St. John, N.B., one of the directors, who has recently returned from a visit to the properties, thus sums up his conclusions: "I was more than surprised and pleased to find the three mills and mill sites and other properties far exceeded my anticipations. Naturally I think I look on the pessimistic side, but I went this long distance at my own expense to look at the properties I had put a lot of money into; and I am confident that with a continuation of good management, at fair prices for the output, and especially taking into consideration the large and magnificent timber limits held by the company, it has a splendid future."

The Fort Frances Pulp & Paper Company have well under way a pulp mill with a capacity of 100 to 125 tons of ground wood pulp per day. The wood preparing room is ready for the installation of the machinery, and the grinder room is completed and the grinders installed. The balance of the machinery for the completion of the pulp mill will be installed during the coming winter. This company also contemplates the construction of a two-machine news print paper mill during 1913.

Gordon Grant & Co., Limited, Port-of-Spain, Trinidad, report under recent date as follows: Lumber and cooperage materials—The Schr. Edyth has arrived from Liverpool, N.S., with a cargo of 208,000 feet white pine lumber. As mentioned in our last, stocks of this quality of lumber are ample for present requirements.

Canadian Headquarters for Lumber Insurance

Security **Lumber Insurance Co. of New York** Economy

42 Central Chambers, Ottawa, Ont.

E. D. Hardy, Canadian Manager
Ontario and Quebec

Dominion License

Canadian Deposit

Agents for Manitoba, Saskatchewan and Alberta: J. A. CHRISTIE & CO., Winnipeg, Man.

For British Columbia, address: Pacific Coast Department, Lumber Insurers General Agency 609 Corbett Bldg., Portland, Ore.

Agent for Martime Province and Newfoundland: J. G. RAINNIE, Halifax, N. S.

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Jenckes Boilers

WE aim to keep on hand a well assorted stock of Horizontal Tubular, Vertical and Locomotive Type Boilers. Your enquiry will probably find us in a position to ship the required boiler at once; if not it can quickly be built. Write us anyway.

The Jenckes Machine Co.
Limited

Sherbrooke - Montreal - St. Catharines - Cobalt - South Porcupine - Vancouver - Rossland
Works: Sherbrooke, Que., St. Catharines, Ont.

The Rat Portage Lumber Co., Ltd.

With Mills at Winnipeg, Man. Vancouver, B. C. Harrison River, B. C. Kenora, Ont. Rainy River, Ont. and Banning, Ont.

Manufacturers of

Lumber, Lath, Shingles, Sash and Doors

And all kinds of Woodwork and Interior Finish. Also Box Shooks and Packing Cases. White and Red Pine Lumber, Maple Flooring, Hardwood Lumber, Turned and Band Saw Work, Cedar Posts and Poles, Tamarac, Piling etc.

ADDRESS HEAD OFFICE **The Rat Portage Lumber Co., Limited - Winnipeg, Man.**

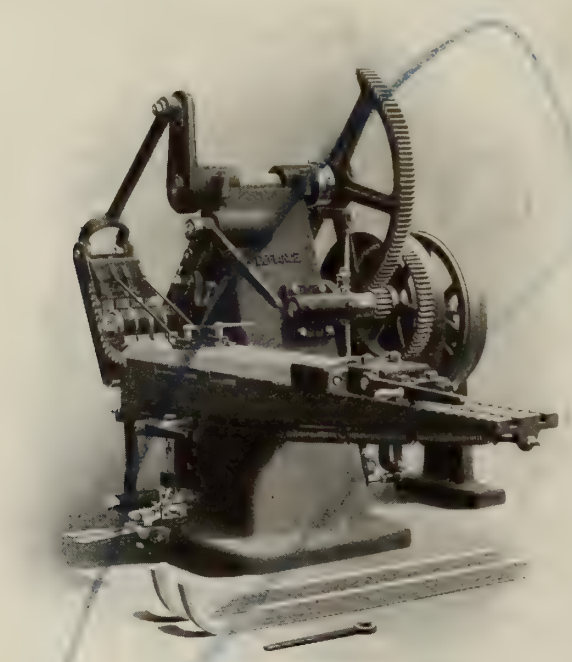
D. C. CAMERON, President and General Manager.

Defiance Patent Plow-Handle Bending Machine

The No. 1 Patent Plow-Handle Bending Machine as shown in the accompanying engraving, is especially designed for the bending of plow handles and other similar work. It contains many new and important features which entirely overcome the difficulties heretofore encountered in performing this particular class of bending. Four handles are bent at each operation, perfectly accurate in circle and free from buckling or breakage.

The main frame is a massive casting in one piece, with cored center, and of great strength to withstand the heaviest class of bending.

The forms over which the handles are bent are made of bronze to prevent corrosion, and they are fitted to a heavy steel shaft which is attached to a sliding head, and by means of a hand lever the forms are brought down upon the handles to hold them in proper position upon the table. A pair of foot treadles, located at the base of the frame, connect with the driving power for running the bending head up and down. The weight of the operator's foot upon one of the treadles instantly starts the machine and bends the handles around the forms. After the bend is completed and the shackles attached to the handles to hold the bend, the operator's foot is applied to the second treadle and the bending head retreats. The forms are then lifted from the handles and held up out of the way by spring balances.



Defiance Patent Plow-Handle Bending Machine

The bent handles can then be quickly removed from the machine without loosening a screw or disconnecting any of its parts.

The bending head is fitted with a tool-steel master strap of link-belt construction, and when down, forms a level table upon which the handles are laid after having been placed into the bender or minor straps. The bender straps are provided at one end with a heel casting and at the other end with a quick-acting screw binder clamp to which the shackles are attached. It requires two straps and two shackles for each batch of timber bent, and they must be left on the bent handles, after they have been taken from the machine, long enough to allow the timber to become cold and thoroughly set, to prevent their springing out of shape. A special spring attachment underneath the bending head insures absolute contact of the bend and the bending head. Automatic safety stops are provided for arresting the bending head on both the upward and downward movements. The motion of the bending head on the upward movement, being automatically arrested, insures uniform bends, as the stop is made at the same point each time, without any attention on the part of the operator. The automatic stop for the downward movement is also of much importance, from the fact that no time is lost in getting the handles off the machine, for the reason that as soon as the bend is completed the operator depresses the left-hand foot treadle when the bending head resumes a horizontal position, thus giving him ample time to remove the bent handles by the time the bending head comes to rest.

The master strap is made of high-carbon steel with interchangeable parts. It should be wiped and oiled frequently. It is also advisable to occasionally remove the same from the machine and place it in oil over night. If the ordinary machine oil fails to lubricate properly, melt a few pounds of tallow and drop the master strap into it, allowing it to remain until cool.

The material to be bent should be equalized to exact length, and the portion which is to form the inside of the bend is rounded or shaped by a special machine to correspond with the shape of the bender forms. The end to be bent should be thoroughly softened, either by steaming or soaking in hot water before being bent. By the use of an ingenious spring device the proper amount of end pressure is applied to each handle individually, which corrects any irregularities that might arise due to the variation in the length of the stock, which often occurs during the process of steaming.

Special strapping device is furnished with which the bending or minor straps are put onto the handles under the desired end pressure before they are placed into the machine. This is a very important feature and is quickly accomplished.

Double attached friction counter instantly starts or stops the machine without shifting the belts, and is free from shock or jar. The operator has complete control over the machine from the working side. Two friction belt pulleys are employed: one 24 inches diameter by 6-inch face, for running the bending head up, which is driven by o straight belt, 50 revolutions per minute; the other pulley is 24 inches diameter by 4-inch face, running 50 revolutions per minute in opposite direction, and driven by a cross belt for running the bending head down.

The counter is furnished as follows: Shaft 1 15/16 inches diameter by 42 inches long; two No. 2 hangers, one pulley 18 inches diameter by 5-inch face, to be driven from line shaft; one pulley 6 inches diameter by 6-inch face, for pulling bending head up; one pulley 6 inches diameter by 4-inch face, for running the bending head down; speed, 200 revolutions per minute; no belt shifter required.

Price and further particulars relative to the advantage of this machine will be gladly furnished by the manufacturers, the Defiance Machine Works, Defiance, Ohio, U.S.A.

An Interesting Stove Exhibit

One of the most prominent exhibits at the Central Canada Exhibition at Ottawa this year was that of Butterworth Foundry Limited, the well-known stove manufacturers of the capital city. Besides a full line of their "Diamond" house ranges, stoves, furnaces, etc., they exhibited their Shanty Steel Range and Heater, which have become so popular with the lumberman from coast to coast. Thirty years of experience has resulted in the perfecting of a range specially adapted to the lumbering needs. Mr. Connor, manager of the company, was in charge of the exhibit.

The Clyde Iron Works, Duluth, Minn., U.S.A., the well-known manufacturers of steam logging machinery, have published an excellent booklet entitled "Cutting the Cost of Clearing Logged-off Lands," which should appeal forcibly to all who have this problem to consider. The booklet is beautifully prepared and is illustrated with many attractive cuts showing the company's machines in operation.

Messrs. Hamilton H. Salmon & Company, of 88 Wall street, New York, are now operating their own gum mill, and advise us that they are in a position to handle large orders of gum from some exceedingly fine stock.

A useful log scale book has been published by the Musson Book Company, Toronto, which should prove popular with all log scalers. The book is bound in strong pliable red cover and contains a simple arrangement of pages providing for the scaling of 10,000 logs. The columns are so arranged as to present the scaling returns in readily available form. The book also includes a copy of a scaler's certificate and a sample contract memorandum. Its price is fifty cents.

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I make a specialty of Oats in bags

Get my prices before you buy

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Keystone Gang Bolter

Durable
Compact

Reliable
Accurate

This cut illustrates our New Gang Bolter for sawing slabs for

Lath Pickets
Kindling Wood Bolts

Bolts for from 60,000 to 100,000 lath can be cut in one day

Other Keystone Machines:

Combined Bolter and Lath Mill
Circular Saw Tables
Pole Road Tram Car
Picket Header

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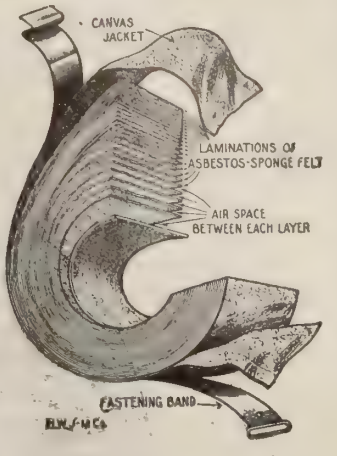
Wanted: Reliable Canadian Representative

Rothfuss-Howard Iron Works

Williamsport, - Pennsylvania

A Sure Way to Reduce Your Coal Bills



If the pipes of your steam plant are covered with only an ordinary covering, or not covered at all, you are wasting hundreds, perhaps thousands of dollars every year. Repeated tests have proved that when pipes are not properly insulated, from one-quarter to three-quarters of the fuel burned is wasted by radiation and condensation.

J-M Asbesto-Sponge Felted Pipe Covering

positively prevents radiation and condensation. It carries steam a mile with practically no loss. It is the most efficient covering on the market, because it confines the greatest amount of dead air—the secret of insulation.

J-M Asbesto-Sponge Felted is also the most indestructible covering on the market. It will not crack, break or lose its insulating value from vibration or rough usage.

The Canadian H. W. Johns-Manville Co., Ltd.

Manufacturers of Asbestos and Magnesia Products

TRADE ASBESTOS MARK

Asbestos Roofings
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THE CAPACITY OF YOUR

DRY KILN

GRAND RAPIDS VENEER WORKS

SAVE

60% Cutting Waste 35% on Machining
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Ask us WHY and HOW

Grand Rapids Veneer Works

Grand Rapids,

Michigan

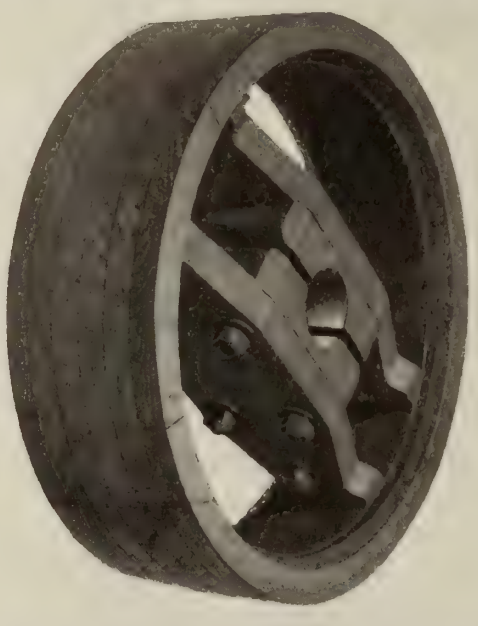
These are the essentials to contentment: An easy mind, a clear conscience and a Tuckett cigarette. Not the least of these is the Tuckett Cigarette. In the soothing fullness of its flavor and its delicate aromatic fragrance, there is ease and pleasure for the man who enjoys a good smoke. Tuckett's are gratifyingly good.

Tuckett's Cigarettes

THREE VARIETIES

Tuckett's Special Turkish	**15c. for 10.**
Tuckett's Club Virginias	**15c. for 10.**
Tuckett's T. & B.	**10c. for 10.**

ELMIRA
Wood Split Pulleys



We have been making these Pulleys for nearly three years and have never had a complaint against the Pulley. If you will try one you will never use any other kind.

Elmira Machinery & Transmission Co.
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LATH

Campbell - MacLaurin Lumber Co.
Limited
Board of Trade Building, MONTREAL

What J. D. Shier says about the Barkey Lumber Register

Barkey Bros., Stouffville, Ont.

Dear Sirs,

Yours to hand and noted. We have been using one of the George Lumber Registers for some years past and find it still working well. It gives very accurate measurements and have never known it to make a mistake. When in need of another we will certainly get one of the same kind.

We remain respectfully yours,

Feb. 5, 1908. J. D. SHIER, Orillia, Ont.

Can be used on any moulding or matching machine.
Ensures absolute accuracy and saves one man measuring.
Sent on 30 days' trial, return at our expense if not satisfactory

BARKEY BROS.
Sole Manufacturers
STOUFFVILLE - ONTARIO

EDGINGS

Ontario

Gill & Fortune, lumber dealers, Trenton, Ont., recently suffered loss by fire.

The Taylor & Green Coal & Lumber Co., Gananoque, Ont., have been succeeded by Jos. Taylor & Son.

The ratepayers of Pembroke, Ont., have passed a by-law granting a bonus of $50000 to the Pembroke box factory.

The Rat Portage Lumber Co., Kenora, Ont., whose mill was destroyed by fire in July last, have commenced work upon rebuilding.

Benson & Bray, Midland, Ont., who are contemplating the erection of a dry kiln are also in the market for a large matcher and edger.

The Laidlaw Bale-Tie Company, Limited, of Hamilton, Ont., have just completed the erection of their new building which they will move into in a couple of weeks.

The Wm. Drader Lumber Co., Thames and Salter streets, Chatham, Ont., recently suffered loss by fire, resulting in the destruction of their planing mill, valued at about $20,000. It is reported that they will rebuild at once.

The Toronto Paper Manufacturing Company, Limited, has secured a license as an extra-provincial company to carry on business in the province of Ontario. Its capital for use in the province of Ontario is restricted by the license to $1,000,000.

The Expanse Lumber Company Limited has bees incorporated with a capital of $100,000 to carry on a general business as dealers in all kinds of lumber, timber, shingles and wood products with head office at North Bay, Ont. The provisional directors are R. M. Rattray, J. R. Moffat, bankers, and J. M. McNamara, barrister, all of North Bay.

The Lakeside Lumber Company Limited has been incorporated with a capital of $100,000 to carry on business as timber and lumber merchants, saw and planing mill proprietors, &c., with head office at Port Arthur, Ont. The provisional directors are Carl Sorenson, lumber merchant, W. F. Langworthy, K.C., and A. J. McComber, barrister, all of Port Arthur.

The Dominion Government Department of Naval Service is calling for tenders until November 12th, for birch, cedar, spruce, pine, oak, fir and teak to be delivered at H.M.G. dock yards at Halifax, N.S., and at Esquimalt, B.C. Tenders should be addressed to the Deputy Minister, G. J. Desbarats. Forms of tender and other information may be secured at the Department at Ottawa or at the naval stores offices at Halifax, N.S., and Esquimalt, B.C.

Messrs. Anson & Ogilvie of Montreal who were the successful tenderers for the Abitibi pulp limit recently offered for sale by the Ontario government, have secured incorporation in the province of Ontario under the name of the Abitibi Pulp & Paper Mills, Limited. The capital stock mentioned in the notice of incorporation is $3,000,000. The company are already sending in material for the foundations of the mill and expect to have them well advanced before the cold weather commences.

The mill recently erected by R. M. Appleby, formerly of Scotia Junction, Ont., at Zebra Siding, on the C. N. O. R. about fifteen miles north of Parry Sound, has been cutting lumber under contract for the Canada Wood Specialty Company. The latter company own limits in that vicinity which will cut out from 16,000,000 to 20,000,000 feet. They count upon cutting about 20,000,000 feet per year. The limits are situated in the township of Ferguson, district of Parry Sound. The mill is equipped with one circular saw and has a capacity of about 20,000 feet per day.

Robert Bruce, of the firm of Alexander Bruce & Company, Fort Frances, Ont., who have a large timber preserving plant at that place, is now in Vancouver, B.C., arranging the location for a large preserving plant which the company intend to erect there as soon as possible. They are also arranging to establish a plant at Edmonton, Alta., and possibly one at Winnipeg, Man. The firm are at present having made at the Polson Iron Works, Toronto, a large cylinder 100 feet long, exclusive of the doors, etc., which they understand is the first of its kind to be constructed in Canada.

A serious fire occurred at Lindsay, Ont., at 11 p.m. on October 20th, resulting in the total destruction of the extensive lumber mill belonging to the Baker Lumber Co. The night watchman who first saw the flames sent in an immediate alarm, but before the firemen could arrive, the flames had secured such a hold upon the building that their efforts were of no avail. The other buildings and a large amount of stock in the vicinity of the yard were saved. It is estimated that the loss will be about $20,000 and the insurance is reported at about $9,000. It is expected that the mill will be rebuilt during the coming winter. The plant gave employment to about 70 workmen and was one of Lindsay's most successful industries. The output of the Baker Lumber Co. during 1911 was 3,536,900 ft.

The Collie & Cockerill Co., 313 Albany avenue, Toronto, manufacturers of office desks, filing devices and cabinets, started business at the above address in May last. They have, however, been so successful since their commencement that the small factory they are now occupying is quite inadequate to turn out the large number of orders which they have on hand. As an example of this, they have sufficient orders from the northwest alone to keep their factory busy until the end of the present year. The firm has just secured incorporation as the Collie-Cockerill Co. Ltd. Mr. J. D. Collie, the former manager of the firm, is president and managing director of the new company. They have purchased two acres of land at Aurora, Ont., and are building a four-storey brick building 150 by 50 feet. The factory has sidings on the Grand Trunk and the Grand Trunk Pacific. It is expected to be finished early in 1913. As soon as the building is ready for occupation, the Collie-Cockerill Co. Ltd. will vacate their Toronto factory and settle permanently in Aurora, shipping their up-to-date machinery from Toronto. The company are at present employing twenty men, but will commence with at least fifty in Aurora.

Eastern Canada

Hubbards Lumber Co., Hubbards Cove, N.S., recently lost their mill by fire.

The Lumber & Construction Co., Limited, Ville St. Pierre, P.Q., has been incorporated.

Billings & Fleming, Debec Junction, N.B., have been registered to carry on a saw mill business.

The D'Israeli Box Co., D'Israeli, P.Q., recently suffered a serious loss by fire when their box factory was totally destroyed. The loss is estimated at $60,000.

The loss on the D'Israeli Company's factory at D'Israeli, P.Q., which was recently destroyed by fire, amounted to $60,000, and the insurance totalled $21,000.

Black & Flaws, Cookshire, P.Q., recently suffered a loss by fire which destroyed their sash and door factory. They will rebuild the plant and will require a complete new outfit. The plant will be of concrete and brick construction with steam power and electric light.

Considerable progress is reported upon the mill which is being erected by John E. Moore at South Bay, N.B. The building has now been roofed. The St. John Iron Works Co. Ltd., St. John, N.B., have the contract for the machinery and the general contractor is E. A. Burns, 341 Main street, St. John.

The mill belonging to Luther B. Smith, at Fredericton, N.B., had a narrow escape from fire recently, but unfortunately the flames destroyed 1,500,000 ft. of sawn lumber valued at upwards of $20,000. The damage to the mill is estimated at $300. The mill was insured, but the lumber only carried $2,000 of insurance.

The large mill belonging to the J. B. Snowball Co. of Chatham, N.B., closed down for the season on Saturday, October 19th, nearly three weeks earlier than usual. More than 16,000,000 ft. of lumber were piled on the wharf at the time. The reason for closing down the mill in advance, was that it had been found impossible to secure steamers for the deal carrying trade. The company's upper mill will continue running for some time yet.

A report from Fredericton, N.B., states that Premier Fleming has signed the deed of transfer of the water power and five acres of land at Grand Falls, N.B., owned by the Provincial Government, to the Grand Falls Co. Ltd., of which Sir William Van Horne is president. The company proposes to erect pulp and paper mills and spend several million dollars in development work at the Falls. It has secured options on extensive areas of timberlands along the upper St. John waters in New Brunswick, Quebec and Maine, from which to secure its raw material .

The Mispec pulp mill is again the subject of considerable discussion among the city commissioners of St. John, N.B. A proposition for selling the mill and property to Stetson, Cutler & Co. has frequently been brought up, but has not as yet come to a conclusion. It is reported that another offer has been received from the company, but that the commissioners consider it too low. Negotiations are now under way with a view to selling it at a slightly higher figure. It is reported that the deal is likely to go through in the near future. It is also reported that another company is considering a proposal to purchase the mill.

Western Canada

The Campbell River Lumber Co., Hazelmere, B.C., recently suffered loss by fire.

L. Robinson and J. Shrive of Sutherland, Saskatchewan, have formed a partnership with the intention of erecting a planing mill next spring.

H. B. Burgess, San Francisco, Cal., is interested in a syndicate which is considering plans for the erection of a sash and door factory at Port Alberni, B.C.

The East Westminster Wood-working Company, Limited, have purchased a site for the erection of a factory at New Westminster. They will manufacture household and hotel fittings.

A large sash and door factory is being erected at Calgary by Mr. Ed. Peterson, contractor. The foundations for the new building are almost completed and within a few weeks the building will be ready for the machinery.

The British Canadian Lumber Co., New Westminster, B.C., have taken out a permit for the construction of a planing mill to cost $11,000. The company's new plant which cost in the neighborhood of $1,000,000 is now operating at full capacity.

The Canadian Western Lumber Co., Fraser Mills, B.C., are reported to be considering the erection of a saw mill costing $100,000 at Comox, B.C. The mill will handle small fir and hemlock logs which might become waterlogged if sent to Fraser Mills.

The new plant of the British Canadian Lumber Company on Lulu Island near New Westminster has begun operations. J. H. McDonald is manager. The mill is a big affair, being 378 x 72 feet, and equipped with the latest machinery. About 250 men are employed.

A United States syndicate is reported to be interested in a proposition for the erection of a pulp and paper mill at Prince Albert, Sask. Mr. H. C. Struction of Minneapolis is reported to be negotiating with the city for a fifteen acre site. Mr. Struction may be addressed, c/o Mr. Davidson, City Clerk, Prince Albert, Sask.

The Vancouver Lumber Co., Vancouver, B.C., recently suffered a serious loss by fire when their dry kiln and 200,000 ft. of lumber were destroyed. The loss amounted to $45,000 and is practically all covered by insurance. The kiln will be rebuilt at once, according to the report of the president of the company, Mr. John E. Tucker.

The Emerson Lumber Company, Vancouver, B.C., recently sold their stock of lumber, logs, etc., at Port Moody, B.C., to the National Finance Company, the firm which bought out the mill and water front some two and a half years ago and gave the Emerson Company a three years' lease, but surrendered it recently and the National Finance Company took over the stocks on hand and also bought two of the Emerson Company's tugs and all of their timber. The National Finance Company have in turn sold the Port Moody business to the Thurston-Flavelle Company who will operate the plant.

Scant 2″

Merchantable Spruce

2″ x 9″ & 2″ x 10″

10 to 13 ft. Long & 14 to 17 ft. Long. Cut early 1912.

5th Quality of same also.

Particulars furnished on request

J. H. REDFERN, LUMBER MERCHANT

920 Charlevoix Street, MONTREAL

Dry Mill Cull and Box Lumber Becoming Scarce

These grades are being rapidly picked up. We have still a nice stock of last season's cut.

White Pine *for the* **Wholesale Trade**

We advise you to write, wire, or 'phone without delay and get the benefit of our low prices.

Thos. Mackarell & Co.

Ottawa
49 Metcalfe Street

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Canadian Express Bldg.

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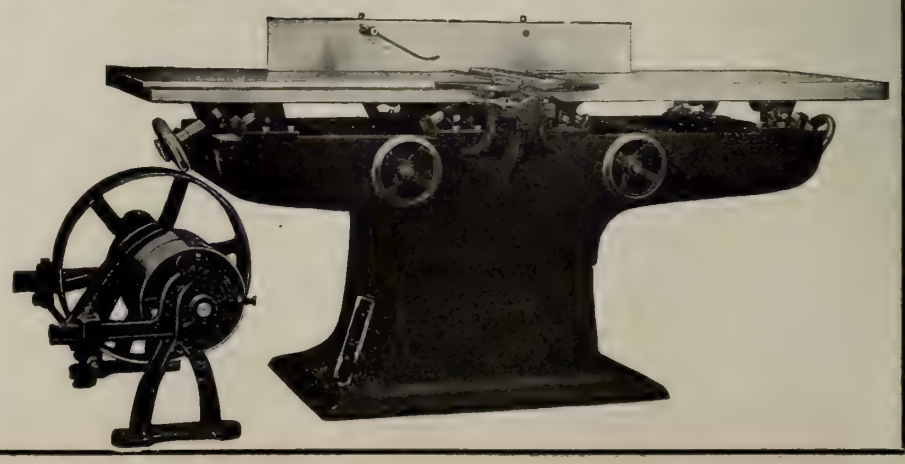
Band Saws, Saw Tables, Swing Saws

Thousands of Silver's Machines are earning big money in all parts of the world. Australia, New Zealand, South Africa and India are heavy buyers.

Silver's machines are designed for convenience and ease of operation and for rapid efficient service. Their moderate price recommends them to all wood workers.

Strong, durable, high pressure machines that will save you time and labor. Made in sizes to suit any need or any purse.

Ask for 1911 Machinery Catalog and special Canadian prices.



THE SILVER MFG. CO.

375 BROADWAY **SALEM, OHIO**

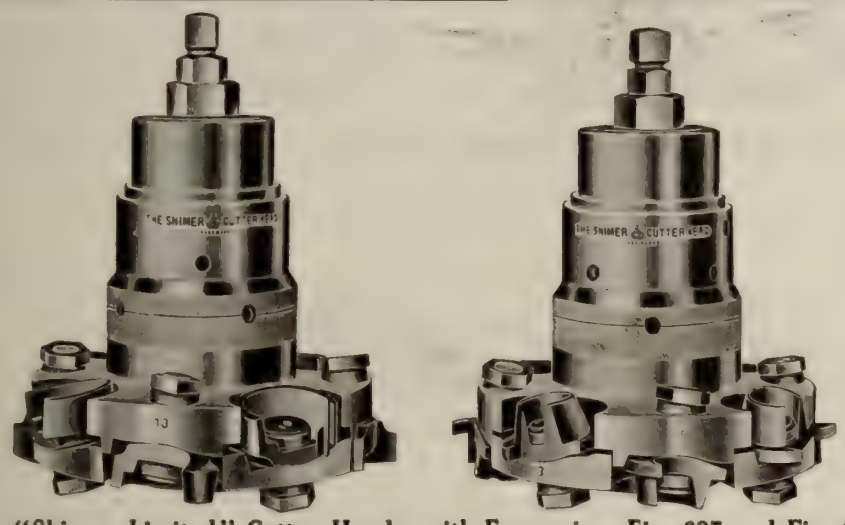
THE SHIMER CUTTER HEADS

Quality Machine Work

The planing mill man, furniture worker or any one who uses machines to finish wood products, will always find in the Shimer System of Tools the remedy for mill troubles, the power to increase output and the facilities to make a superior product.

No matter whether your work is Single Matching, Double Matching, Ship Lap, Jointing, making Glue Joints or Door and Sash patterns, if you desire to turn out quality product get the Shimer System in your mill.

Look over this page and then let us have your specifications.



The "Shimer Limited" Cutter Heads, with Expansion, Fig. 627 and Fig. 628.

For the High Speed Matcher

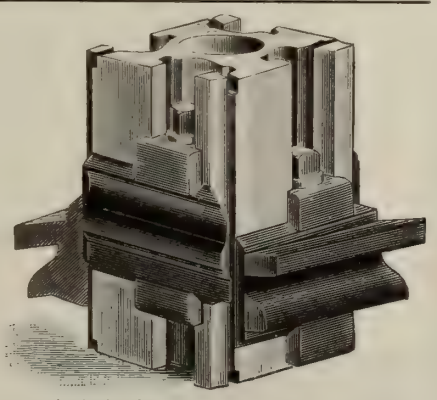
These Heads have a chucking device which self-centers them on the spindle and grips firmly thereto when the device is drawn up, overcoming the objectionable set screw as a means of fastening the Head to the spindle. It is reliable and practically perfect in results.

The Bits carry a larger areal surface and the Bit chambers are of greater depth to compensate for the new acute angle given to the Bits for greater relief to the parts coming into contact with the lumber.

They are simple and strong throughout, have no delicate parts to break down or get out of order, and are safe and efficient tools for matching flooring, etc., at high speeds.

Price, net, for Flooring, $72.46 the set complete.

The Shimer Combination Head for Door, Sash, Blinds and Mouldings



The Head illustrated herewith is intended more particularly for the mills which make only a few mouldings or Door and Sash patterns and change work several times a day. Where a mill runs on stock or has much work to do we advise running the Shimer Heads with Circular Bits on account of the greater wear and the fact that the Heads are always ready to be slipped on the spindle.

This particular outfit consists of one Combination Head with one set of Sash Bits, one set of Door Bits, one set of Cope Heads with Door Cope Bits and two Sash Cope Bits for the lower Door Cope Head. The outfit is sent complete for the low price of $47.31.

The Bits are quickly changed and set to the gauge, when the Door and Cope moulds or the Sash and Cope moulds will match to a nicety. There are no complications to puzzle or annoy operators. As the Bits are moulded on the back at an angle, they work with perfect clearance and maintain standard patterns. Bits can also be adjusted for different thicknesses of Door and Sash mould.

This Head is very strong and durable and with its combinations is applicable to every class of work. It will take Bits to make Door, Sash and various other mouldings and these Bits are quickly and accurately changed and adjusted by the use of a gauge.

We guarantee these tools to be of the best material and workmanship, and will send them on 30 days trial to any responsible lumberman returnable if not satisfactory.

Send measurements at once.

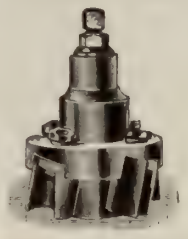
Our Popular Cutter Heads

Figs. 202 and 203 are the leading tools, having Conical Duplex Bit Seats and The Shimer Cutter Head Expansion. Flooring Bits will work from 13/16 to 1½-in. in thickness with tongue and groove proportions expanded to suit.

Price, net, complete with one set of flooring Bits, the gauges for setting the Bits and wrench $40.95
Extra Bits for Flooring 11.44
Extra Bits for Ceiling 10.40

With 4 Bits to Each Head

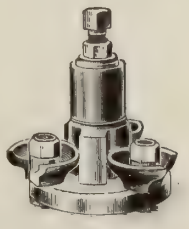
Jointer Heads



Figs. 54 and 55, with four Bits in line of work, shear the cut downwardly to insure a sharp and clean upper edge. They cut clean and free and are shipped out under our guarantee to give satisfaction.

Price, Heads, complete with Bits for 15/16 to 1¼-in., net only $31.20
Extra Bits 1½-in. face, the set 10.40
Extra Bits, 2-in. face, the set 12.48

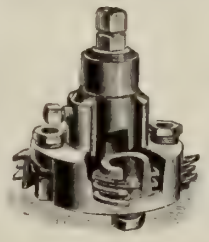
O. G. Batten Heads



Figs. 48 and 49 represent our best tools for this work, having 3 Bits in line of cut so arranged upon their seat inclines as to protect all but cutting edge against friction and wear.

Price, two Heads, complete with Bits, net only $31.98
Extra Bits, each, net 2.08

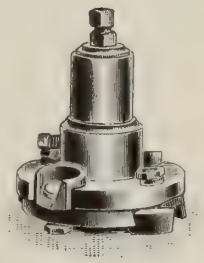
Double Ceiling Heads



Figs. 45 and 46, are made in solid section, steel forged, with Bits of special design to cut two tongues on one edge of board, and two grooves on opposite edge, to be re-sawed for two thin boards tongued and grooved. Very complete.

Price, with one set of Bits, net $40.94
Extra Bits, per set of (8) 16.64

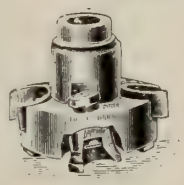
Ship Lap Heads



Figs. 38 and 39 are made of steel forgings, in solid section, designed especially for heavy duty. The bit seats have the latest improved slants to provide free cutting edges, and we sell them at the following low and net prices:

Heads with one set of Bits to work 15/16 to 1½-in. thick, net $34.84
Extra set of Bits 11.96

Door, Sash and Coping Tools



That save all the hand fitting. No changing of patterns, therefore, no trouble in framing door and sash parts when matched with the Shimer Cutter Heads.

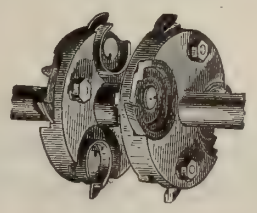
DOOR AND SASH HEADS

Fig. 82, solid flange, Door Head $10.75
Fig. 84, Expansion Door Head 13.35
Fig. 86, solid flange, Sash Head 9.75
Fig. 206, Expansion Sash Head 12.35
Bits to work 1-in. to 1¼-in. Doors, 4.. 7.28
Bits extra to work 1 to 1¼-in. Sash (2 Moulded Bits, $4.30; 2 Rabbeting Bits, $2.86) 7.16

COPE HEADS

Fig. 83, Cope Heads (2) $12.90
Coping Bits, each 1.43

The Shimer Box Board Matching Heads



make a uniform cut and close fit, as well after years of use as when new, with no friction upon the Bits. For thicker material the Bits can be expanded.

Price for two Cutter Heads to match ⅜ to ½ inch, $29.15.

We also furnish when desired a Yoke Mandrel with self-oiling boxes, boxed f.o.b. Galt, $11.05.

Samuel J. Shimer & Sons

Milton, Pa., U. S. A. - - - Galt, Ontario, Can.

Bain Sleighs for Logging Operations

Famous for their great Capacity and Light Draft

LOGGING is a severe test of a sleigh.

The best is none too good, even though you may pay considerably more than for one which possibly may appear to be just as good.

It is only by actual test—the test of time and hard usage—that the difference is apparent, and the increased first cost is forgotten. **The quality is remembered long after the price is forgotten.**

The cross chain couplings allow great flexibility and the hind bob follows in the tracks of the front when turning. Some prefer the short reach for well broken roads as a sleigh so fitted can be backed same as a wagon.

Swing bunks are an advantage in the bush, as they can be swung parallel with the runners when driving without a load.

Any of these sleighs except the heavy sloop can be fitted with 38, 40 or 42 inch bolsters for general work.

Our new catalogue No. 30 tells all about it and is yours for the asking.

The Bain One-Beam North Shore Sleigh

Steel Shoes; Swing Bunks or Bolsters; Cross Chain Coupling; 2 ft. 10 in. or 3 ft. Track. Clearance under Beam 9½ inches

The Bain North Shore Sloop Sleigh

Steel Shoes; Cross Chain Coupling; 2 ft. 10 in. or 3 ft. Track. Clearance under Beam 7 inches

The Bain Heavy Sloop Sleigh

Steel Shoes; Cross Chain Coupling; Furnished without Bolsters but with king bolts front and rear; 3 ft. 4 in., 4 ft. 4 in. or 4 ft. 8 in. Track. Clearance under Beam 7 inches.

The Bain Heavy Sloop Sleigh

With Short Reach Coupling

The Bain Double Beam Manitoba Sleigh

Steel Shoes, Short Reach Coupling, 3 ft. track. Clearance under Beam 9½ inches

Massey-Harris Co.

Limited

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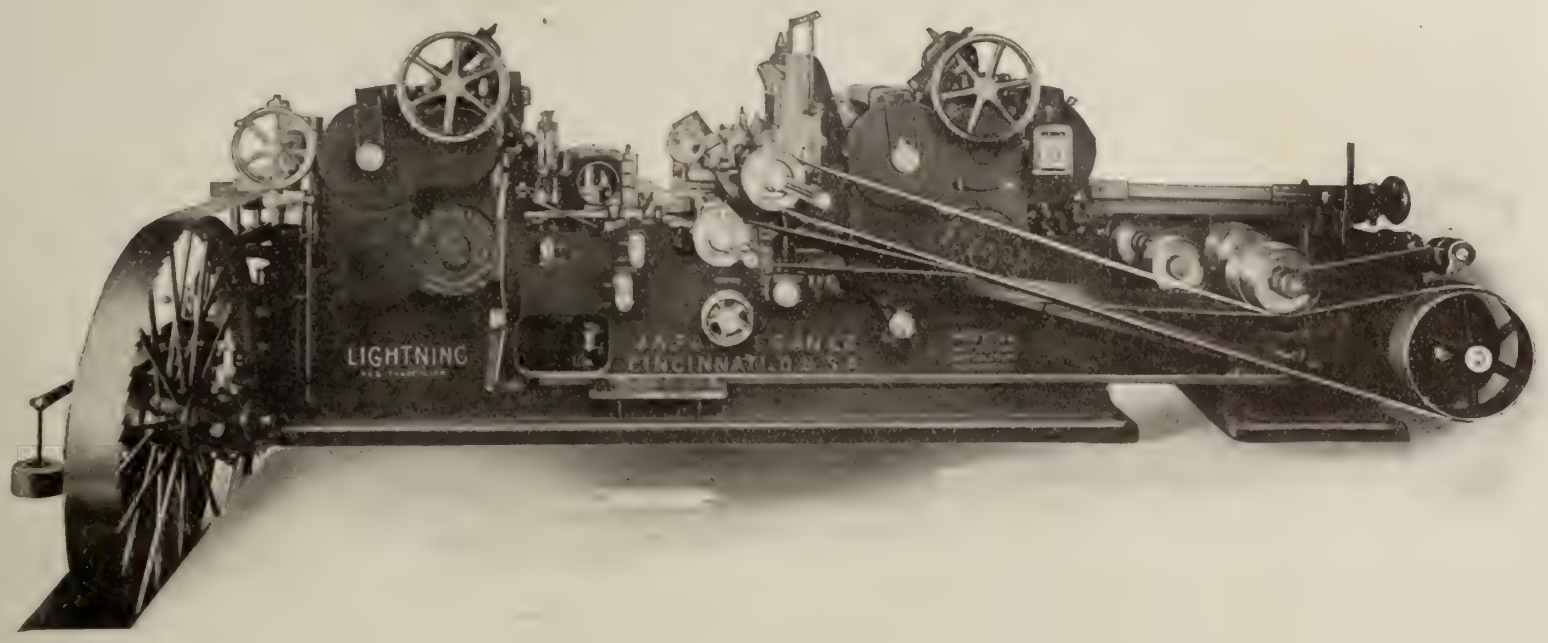


The New FAY-EGAN "LIGHTNING" 333-335 Matcher-Resaw

will produce twice as much on certain lumber stocks at one-half your present labor cost—

—You now use two men on the Matcher and two men on the Resaw to manufacture bevel siding, ship-lap, flooring, ceiling, box shooks, etc., at 75 to 100 ft. per minute. On the new 333-335 Matcher-Resaw you can do this same work at 150 to 200 ft. and upward per minute, with only two men—and you save the cost of trucking and handling between the machines.

—in addition to doubling capacity and cutting labor costs one-half or more, this machine will manufacture lumber without tearing out on knotty and cross grained stock, raising grades 10 to 30%—wherever it is possible to plane and match double thick and resaw after, this new machine will effect a wonderful saving—just figure it out for yourself.

—this new machine is a combination of our "333", the greatest Matcher ever built, and our No. 335 Horizontal Band Resaw—**placed below the bedline of the Matcher,** eliminating dangerous overhead rigging and giving a steadier and more accessible mechanism. Blade is easily slipped off the wheels when Matcher only is to be used.

Write today for details of this new method of manufacturing lumber on a 333-335 Matcher-Resaw.

"With the Resaw Below the Bedline of the Matcher."

J. A. FAY & EGAN CO.

465-585 W. Front Street, CINCINNATI, OHIO

SALES OFFICES:— New York, Chicago, Seattle, St. Louis, New Orleans

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$60 00	65 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
1½-in. No. 1, 2 and 3 Cuts	48 00	50 00
2-in. No. 1, 2 and 3 Cuts	48 00	50 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	24 00	26 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	30 00	32 00
1 x 12 common and dressing	39 00	41 00
1 x 10 and 12 mill cull stocks—		22 00
1-in. mill cull sidings		19 50
2 x 10 common		28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	22 50	23 50
1 x 10 inch box and common.	24 00	25 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	24 00	26 00
1-in. mill run shorts		20 00
1-in. deal cull sidings		16 00
1-in. flooring		28 00
1-in. mill run Norway		22 00
2-in. mill run Norway		25 00
Norway, c and cf 1-in.	34 00	35 00
Norway, c and cf 1½-in.	35 00	38 00
Norway, c and cf 2-in.	33 00	35 00
Spruce mill run	21 00	22 00
Spruce mill culls		18 00
Clear in. B.C. cedar, kiln dried.	55 50	65 50
Douglas Fir		
Dimension Timber up to 32 feet:		
8, 10x10, 10x12, 12x14, 12x12, 12x14, 14x14, 14x16		35 00
8x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 14x18, 16x18 18x18, and 20x20		35 50
6x14, 8x14, 12x18, 18x20		36 00
6x16, 8x16, 10x18, 12x20, 14x20, and 16x20		36 50
10 x 20		37 00
6 x 18, 8 x 18		37 50
6 x 20, 8 x 20		38 50
Lengths over 32 ft. take the following advances: 33 to 35 ft., 50c.; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5		
Fir flooring, edge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		45 00
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 00
1½-in. No. 1 4-ft. pine lath		4 50
1½-in. No. 2 4-ft. lath		4 00
1½-in. 32-in. pine		1 60
1½-in. No. 1 4-ft. hemlock lath		3 75
1½-in. mill run hemlock lath.		3 50
X pine or cedar shingles		1 05
XX pine or cedar shingles		2 25
XXX pine or cedar shingles		3 20
XX B. C. cedar shingles		2 40
XXX 6 butts to 2-in.		3 40
XXXX 6 to 23-16-in.		3 52
XXXXX		3 75
Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.		17 50
1 x 6 6-in. x 9 to 16 ft.		21 00
1 x 8-in. x 9 to 16 ft.		22 50
1 x 10 and 12 in. x 9 to 16 ft.		23 00
1x7, 9 and 11 in. x 9 to 16 ft.		20 00
1-in. No. 2, 6-ft. to 16-ft.		16 50
2x4 to 12-in., 12 and 14 ft.		22 00
2x4 to 12-in., 18 ft.		22 00
2x4 to 12-in., 20 ft.		24 00
2 x 4 to 12-in., 22 ft.		27 00
2 x 4 to 12-in., 24 ft.		28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		17 00

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	55 00	
Ash, white, No. 1 common	45 00	
Ash, brown, 1sts and 2nds, 4/4.	48 00	
Ash, brown, common and better	37 00	
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00	
Birch, 1sts and 2nds, 4/4	35 00	
Birch, No. 1, com. and bet., 4/4.	30 00	
Birch, 1sts and 2nds, 6/4 and 8/4	38 00	
Birch, 1sts and 2nds, 10/4 and 12/4.	42 00	
Birch, 1sts and 2nds, 16/4	44 00	
Basswood, 1sts and 2nds, 4/4	38 00	
Basswood, No. 1 com. and bet., 4/4.	33 00	
Basswood, No. 2 and 3, common	17 00	
Basswood, 6/4 and 8/4, 1sts and 2nds	42 00	
Basswood, 6/4 and 8/4, com. & bet.	37 00	
Basswood, No. 2 common and better.	29 00	
Soft elm, 1sts and 2nds, 4/4	36 00	
Soft elm, No. 1 com. and bet., 4/4	29 00	
Soft elm, No. 2 and 3, common	16 00	
Soft elm, 6/4 and 8/4 1 and 2	38 00	
Soft elm, 1sts and 2nds, 6/4 x 8/4	50 00	
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00	
Soft maple, 1sts and 2nds, 4/4	31 00	
Soft maple, com. and better, 4/4	25 00	
Soft maple, 6/4 & 8/4, 1sts and 2nds.	34 00	
Hard maple, 1sts and 2nds, 4/4	34 00	
Hard maple, common and better, 4/4.	27 00	
Hard maple, 12/4 & 16/4, 1sts & 2nds.	43 00	
Red oak, plain, 1sts and 2nds, 6/4 & 8/4	60 00	
Red oak, plain 1sts and 2nds, 12/4 and 16/4	65 00	
White oak, plain, 1sts and 2nds, 4/4.	55 00	
White oak, plain, 1sts and 2nds, 1½ and 2-in.	60 00	
White oak, plain, 1sts and 2nds, 12/4 and 16/4	70 00	
White oak, ¼ cut, 1sts and 2nds, 4/4.	86 00	
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	90 00	
White oak, ¼ cut No. 1 common	55 00	
Hickory, 1sts and 2nds, 4/4	70 00	
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00	

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$53 00	55 00
1¼-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up	40 00	45 00
Pine good strips:		
1-in.	45 00	47 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	50 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	38 00	40 00
1-in. x 4-in. to 6-in.	30 00	35 00
1¼-in. and 1½-in.	48 00	53 00
2-in.	52 00	56 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	33 00	35 00
Pine, No. 1 dressing strips	26 00	31 00
Pine, No. 1 dressing shorts	22 00	26 00
Pine, 8 s.c. and better, 12 ft. to 16 ft.	25 00	26 00
Pine, 7 up s. c. siding 1-in.	22 00	25 00
Pine s. c. sidings 1½ & 2-in.	29 00	32 00
Pine, s. c. strips 1-in.	18 00	20 00
1¼, 1½ and 2-in.	24 00	27 00
Pine, s.c. shorts, 1 x 4 to 6 in.	16 00	18 00
Pine, s.c. and bet. 1 x 5	22 00	25 00
Pine, s.c. and bet. 1 x 6	23 50	25 00
Pine, box boards:		
1"x 4" and up 6'-11'	13 00	14 00
1"x 3" to 6", 12'-16'	16 00	18 00
1" x7" and up 12'-16'	18 00	19 00
Pine shorts 6'-11' 1"x 10'	20 00	21 00
1x9 and 9· No. 1 barn	29 00	30 00
O. culls r & w p	11 00	13 00
Red Pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
Mill run Spruce:		
1"x 4" and up, 6'-11'	15 00	16 00
1"x 4" and up, 12'-16'	16 00	18 00
1"x 9"-10" and up, 12'-16'.	18 00	19 00
1¼"x 7" 8-9" and up, 12'-16'	18 00	20 00
1¼"x 10" and up, 12'-16'.	19 00	21 00
1½" & 2"x12" & up, 12'-16'	24 00	25 00
Spruce 1-in. clear (fine dressing and B)	24 00	27 00
Hemlock 1-in. cull	10 00	12 00
Hemlock 1-in. log run	13 00	18 00
Hemlock 2x4, 6, 8, 10, 12/16'	15 00	18 00
Tamarac	13 00	15 00
Basswood log run, dead culls out	22 00	25 00
Basswood log run mill culls out	26 00	30 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
Pine, s.c. and better, 1x7	21 50	23 00
Pine, s.c. and better, 1x8	23 00	25 00
Pine, s.c. and better, 1x9	23 00	25 00
Pine, s.c. and better, 1x10	25 50	27 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	15 00	18 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	11 00	13 00
Lath per M:		
No. 1 white pine 1⅜-in. x 4-ft.	3 75	4 00
No. 2 White Pine	3 25	3 50
Mill run white pine	3 00	3 25
Spruce, mill run 1½-in.	2 75	3 00
Red pine mill run	3 00	3 25
Tamarac mill run	1 25	2 00
Basswood, mill run	2 50	3 00
Hemlock, mill run	2 75	3 00
32-in. lath	1 60	1 80
Pine Shingles		
xxxx, 18-in.	3 00	4 00
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	2 75	3 25
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

	cts.	
First class Ottawa waney, 18-in. average, according to lineal	85	90

Oak—Michigan and Ohio

By the dram, according to average and quality	62	70

Elm

By the dram, according to average and quality, 40 to 45 feet	80	85
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash

13 inches and up, according to average and quality	25	30
Average 16 inch	30	40

Birch

14 inch	18	20
15 inch	22	24
16 inch	26	28
18 inch	32	30

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up.	$18 00	19 00
Oddments	15 00	16 00
Boards, 1 and 2 in.	15 00	16 00

Birch Planks

1 to 4 in.	16 00	17 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$54 00
1 in., 8 in. and up wide	67 00
1¼ and 1½ in. and up wide	69 00
2 in. and up wide	72 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	67 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	47 00
1¼ in., 8-in. and up wide	57 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	48 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	22 00
1-in. x 5-in.	24 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	30 00
1-in. x 12-in.	35 00
1-in. x 13-in. and up	35 00
1¼, 1½ and 2-in.	32 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	20 00	22 00
No. 2, 1¼, 1½, 2-in.	18 00	22 00

Mill Culls

Mill run culls, 1-in.		17 00
1, 1¼, 1½ and 2-in.		18 00
No. 2	16 00	17 00

Lath

No. 1, 32-in. pine	1 50
No. 2, 48-in. pine	3 75
No. 3, 48-in. pine	3 00
No. 1, 48-in. pine	4 25
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

..PINE, SPRUCE, TAMARAC & LARCH..

Mountain Stock Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10 18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00 27 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring.	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine mixed widths	20 00
No. 4 common pine, mixed widths	14 50
No. 5 common pine, mixed widths	10 00

SHINGLES

XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00

(Continued on page 72)

72 Years of Disston Control

In these times when new firms are born every year and old ones are changing from one control to another; when many are endeavoring to ***build*** reputations by clever advertising, it is significant to learn of a firm with a record such as that of Henry Disston & Sons.

Aside from those sentimental feelings that naturally attach to it is the importance of this record to the users of DISSTON goods. It conveys the assurance that DISSTON Saws, Tools and Files are made to-day in the same thorough manner as for nearly four-score years, and that the efforts expended to ***build*** the high reputation achieved are still being made to maintain and enhance it.

When the statement is made that the ownership, operation and management of Henry Disston & Sons has not left the DISSTON family since the foundation of the business in 1840, it presents the products of this firm in a new light.

A man starting with the high ideals that Henry Disston did must surely impress his personality upon his sons and grandsons, and while they continue to manage and extend the business, as they are doing to-day, the same high aims and broad policies that were his will never cease to pervade the entire organization.

No man knew better the value of a reputation and he strove to establish one that could never be surpassed. This reputation he built with his unmatchable saws as a secure and lasting foundation. The business has grown to its present huge proportions because the reputation established by its founder has been greatly broadened by his descendants.

The same policies, the same spirit of advancement, the same aspirations, prevail to-day, and those who purchase DISSTON products hold in higher esteem the reputation behind them than the guarantee that goes with them, for a guarantee can be earned by ***anyone,*** while a reputation must be earned.

HENRY DISSTON & SONS

INCORPORATED

REPRINTED FROM
THE DISSTON CRUCIBLE
OF APRIL, 1912

Keystone Saw, Tool, Steel and File Works
PHILADELPHIA, PA.

BRANCH HOUSES: { Chicago, Boston, Cincinnati, New Orleans, Memphis, San Franciso, Seattle, Portland Spokane, Toronto, Vancouver

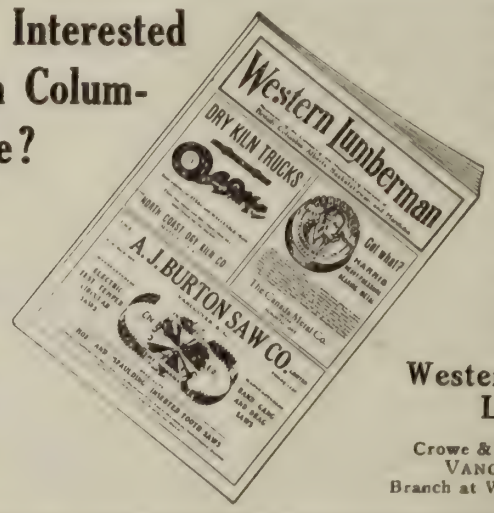
The Peter Hay Knife Co., Limited
GALT, ONTARIO

MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters and Mortise Chisel

Are You Interested in British Columbia Trade?

The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.



There is undoubtedly a big market for Mill Equipment of all kinds. Let us Demonstrate our Advertising service. We please others, we can please you.

Western Lumberman

Crowe & Wilson Chambers
VANCOUVER, B. C.
Branch at Winnipeg

Lumber Camp Ranges and Heaters

All Kinds of Stoves for Large or Small Camps

Our stoves are specially designed to meet all requirements of camp work.

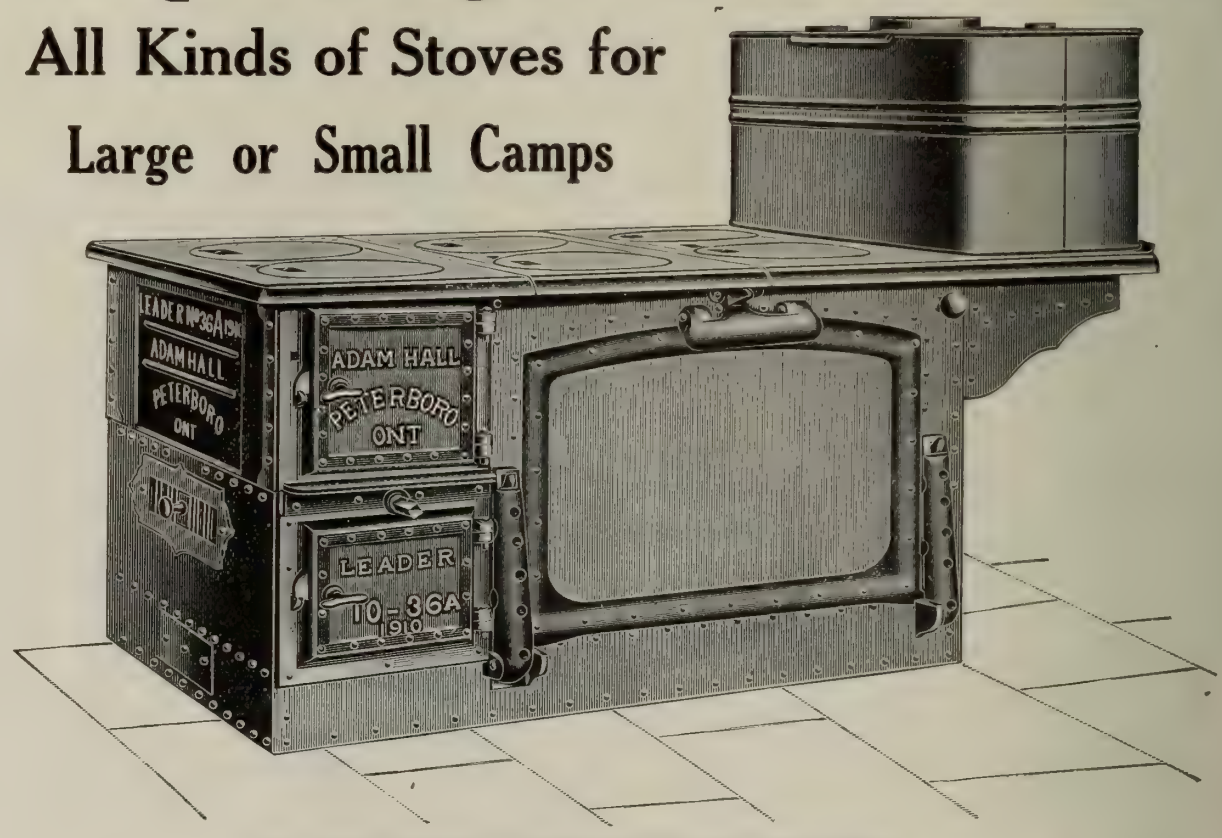
We know exactly what is necessary and desirable in this class of stove.

We put into all our stoves the best of material and workmanship coupled with the best of expert experience.

The 'Leader Range' for coal and wood, shown in this cut is specially adapted to Lumberman Camps, Boarding Houses, Hotels and Railroad Construction Camp Work. We also make this Range with side hinge doors.

It is large, heavy and strongly built. Has good oven space and large heating surface. When a good, solid, reliable stove is wanted the 'Leader' will give satisfaction.

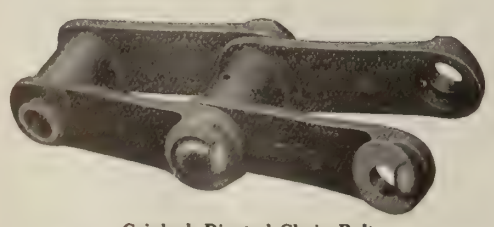
Write for our catalogue.



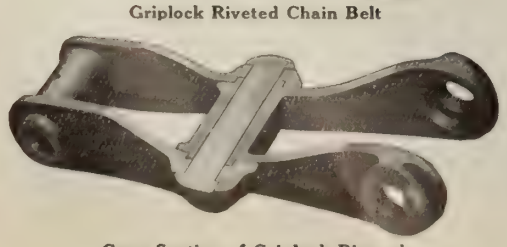
NO. 10-36A SIX HOLE LEADER RANGE AND RESERVOIR

ADAM HALL, Limited - Peterborough, Ontario

Manufacturers of Ranges, Heaters, etc., for Lumber Camps, Hotels, and Railway Construction



Griplock Riveted Chain Belt



Cross Section of Griplock Riveted

No More Breakdowns—No More Delays

This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock.** **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

Sold by **The A. M. ELLICOTT CO., Montreal, Que.**

Elevating, Conveying and Transmission of all kinds a specialty

ENGINES and BOILERS

OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

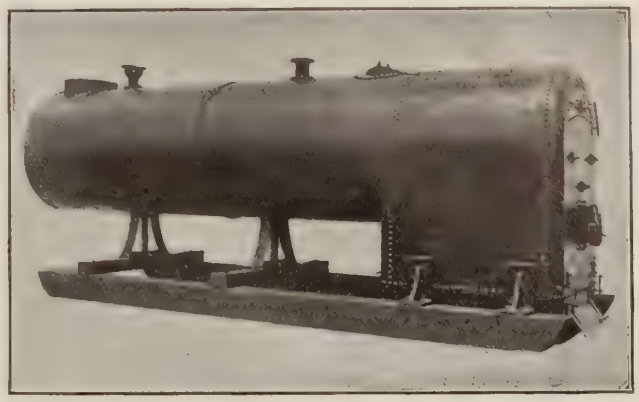
We cater specially to the lumbering industries

Write for Prices and Information

E. LEONARD & SONS

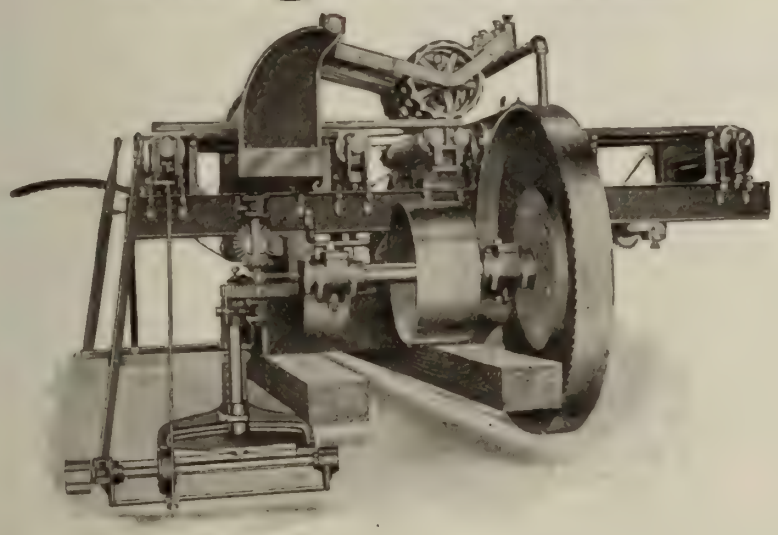
LONDON, CANADA

Agencies and Warehouses:—ST. JOHN, N.B. MONTREAL, QUE. TORONTO, ONT. WINNIPEG, MAN. CALGARY, ALTA. VANCOUVER, B.C.



Locomotive Boiler on Skids

500 Saw Mills Using Mershon



Saginaw Seven-Foot Band Resaw

VERTICAL AND HORIZONTAL RESAWS

Imitated but not equalled

Buy the Genuine

WM. B. MERSHON & CO., Saginaw, Mich.

Are your horses of use to you?

This seems an absurd question—and the answer is always **"Of course they are"**—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	$4.50 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	15.00 doz.

Johnson's Horse Liniment, No. 2 (an oil liniment)

1 gal. jugs (Imperial)	3.00 gal.
1 lb. bottles	6.00 doz.
2 lb. bottles	11.00 doz.

Johnson's Horse Colic Remedy

A sure and speedy cure for all kinds of Colic

1 gal jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz,

Johnson's Veterinary Healing Ointment (Gall Cure)

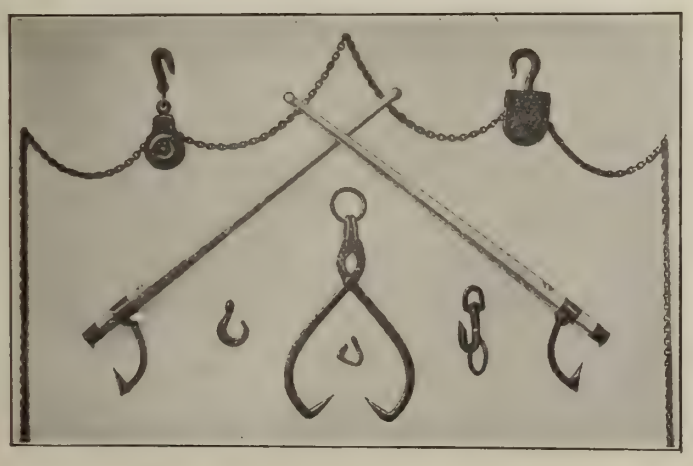
2 lb. tins	2.25 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 doz.

Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, **Collingwood, Ont.**



When ordering from your Jobber specify

Pink's Lumbering Tools

and if they cannot supply them order direct, and you will get the best tool made

The Thomas Pink Co. Limited

PEMBROKE, Ont., Canada

Manufacturers of the best line of Lumbering Tools in Canada

CURRENT LUMBER PRICES—Continued

No. 1 Moulding 5/4		58 00
No. 1 Moulding 6/4		58 00
No. 1 Moulding 8/4		58 00
No. 2 Moulding 5/4		47 00
No. 2 Moulding 6/4		47 00
No. 2 Moulding 8/4		47 00
No. 1 Barn 1 x 12		46 00
No. 1 Barn 1 x 6 and 8		34 00
No. 1 Barn 1 x 10		36 00
No. 2 Barn 1 x 6 and 8		30 00
No. 2 Barn 1 x 10		32 00
No. 3 Barn 1 x 6 and 8		23 00
No. 3 Barn 1 x 10		25 00
Box 1 x 6 and up		22 00
Box 1 x 10		23 00
Box 1 x 12		25 00
Box 1 x 13 and up		30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

White Ash

1st and 2nd, 1 inch	40 00	42 00
1¼ to 2 inch	44 00	46 00
2½ to 4 inch	48 00	58 00
Strips	22 00	24 00
Common and culls	14 00	22 00

Black and Brown

1st and 2nd, 6 inch up	40 00	42 00
Common good culls	14 00	20 00
1st and 2nd 6 inch and up, red.	40 00	42 00
1st and 2nd, white, 6 in. & up.	30 00	32 00
Common and good culls	16 00	18 00

Elm

1st and 2nd, rock, 6 in. and up	34 00	38 00
Common and culls	16 00	20 00
1st and 2nd, soft, 6 in. and up	28 00	32 00
Common and culls	13 00	18 00

Maple

1st and 2nd hard	26 00	30 00
Common and culls	14 00	22 00
1st and 2nd, soft	26 00	28 00
Common and culls	14 00	22 00

BOSTON, MASS.

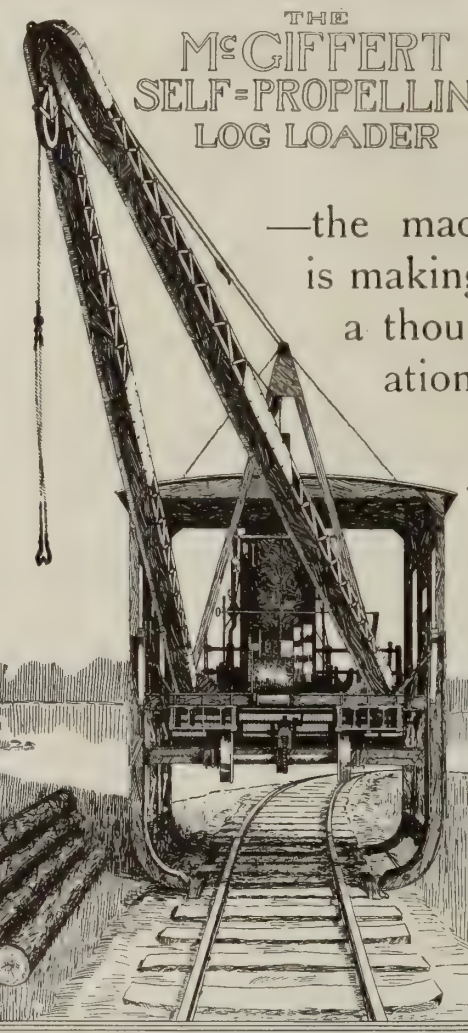
White pine uppers, 1 to 2 in.		100 00
Selects, 1 to 2 inch		90 00
Fine common, 1 in.		72 00
Fine common, 1¼ to 2 in.	74 00	75 00
No. 1 Cuts 1 in.		45 00
No. 1 Cuts 1¼ to 2 in.	58 00	60 00
No. 2 Cuts, 1 in.	35 00	37 00
No. 2 Cuts, 1¼ to 2 in.	45 00	48 00
Barn Boards, No. 1, 1 x 12	51 00	52 00
No. 1, 1 x 10		39 00
No. 1, 1 x 8		38 00
No. 2, 1 x 12		43 00
No. 2, 1 x 10	35 00	36 00
No. 2, 1 x 8	34 00	35 00
No. 3, 1 x 12	33 00	34 00
No. 3, 1 x 10	28 00	30 00
No. 3, 1 x 8	28 00	29 00
Canadian spruce boards	23 00	24 00
Spruce, 10 & 12 in. dimension.	26 00	27 00
Spruce, 9 in. and under dimen.		25 00
10 and 12 in. random lengths, 10 ft. and up	24 00	25 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	22 50
All other random lengths, 7" and under, 10 ft. and up	21 00	22 00
5-in. and up merchantable boards, 8 ft. and up, p 1s		21 50
Vermont spruce boards, matched		23 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		21 00
1⅛-in. spruce laths		4 50
1½-in. spruce laths		3 85

New Brunswick Cedar Shingles

Extras	$3 60	$4 00
Clears	3 25	3 60
Second clears		2 75
Clear whites		2 30
Extra 1s (Clear whites out)		1 65
Extra 1s (Clear whites in)	1 50	1 60
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 50	4 00
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 35
Red Cedar Perfection, 5 butts to 2¾		4 90
Washington 16-in. 5 butts to 2-in. extra red cedar		4 10

The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30 Maple, $3.25 per M. ft.; 1/24 maple, $3.50 per M. ft.; 1/20 maple, $3.75 per M. ft.; above cut to dimension.

3/16 3-ply maple, 1 st. good, 3¼c. per ft.; ¼ 3-ply maple, 1 st. good, 3½c. per foot, all f.o.b. Jamestown, N.Y.



THE McGIFFERT SELF-PROPELLING LOG LOADER

—the machine that is making good on a thousand operations.

SEND FOR CATALOG No. 13

CLYDE IRON WORKS DULUTH, MINN.

International

Preparations for Horses are all sold on a Spot Cash Guarantee

Let us figure on furnishing you the following supplies for the coming season.

International Stock Food
We guarantee that your horses will do more work and keep in better order on less feed if they get International regularly.

International Silver Pine Healing Oil
Especially recommended for Sores, Bruises, Kicks, Inflammation and all flesh wounds.

International Worm Powder
Will quickly expel all kinds of worms.

International Distemper Cure
For Coughs, Colds, and Distemper.

International Colic Cure
Guaranteed to cure Colic in ten minutes.

International Compound Absorbent
Greatest Curb cure on Earth.

International Gall Cure
Cures while horses work or rest.

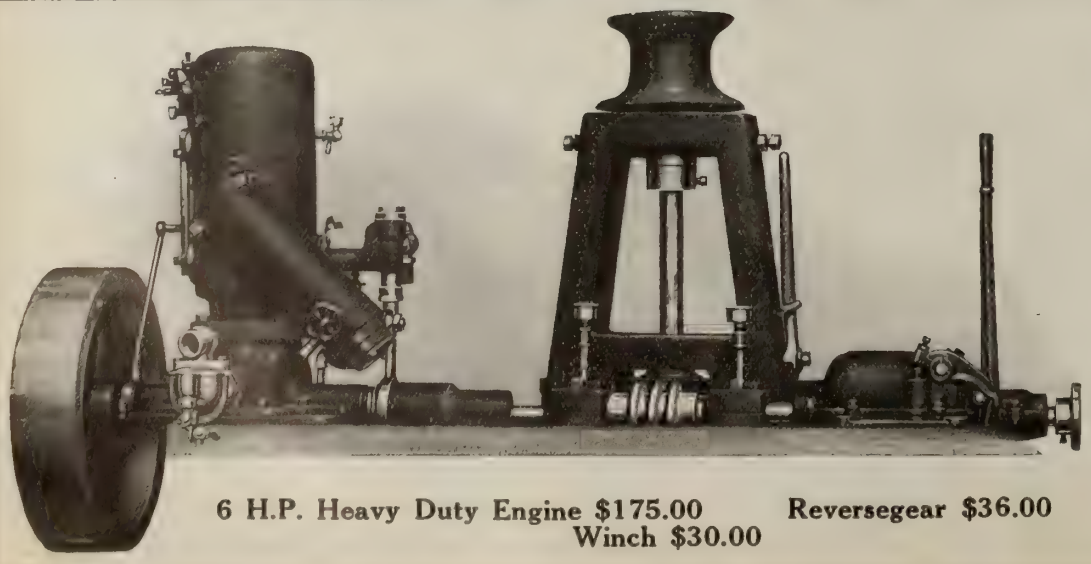
International Foot Remedy
Cures Foot diseases, keeps the hoof soft, elastic and tough

International Harness Soap
Gives new life to old harness.

All our goods are guaranteed to give satisfaction.

Write for Special Prices

International Stock Food Co., Limited
Toronto, Ont.



6 H.P. Heavy Duty Engine $175.00 Reversegear $36.00
Winch $30.00

River Driving Costs

will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25′ punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. Machinery $205.00. Complete punts $375.00. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 H.P.

Adams Launch and Engine Co.
Penetang, Ont.

MAHOGANY

We Carry Full Stocks of

FIGURED
CUBAN
VENEER

Making a Specialty of 1-20 and 1-8

We import the highest grades of Fancy Hardwoods and on short notice can furnish logs or seasoned lumber suitable for cabinet work, interior finish or

Fancy Sawed Veneers

Other Stocks are:

English Brown Oak Butts—Sawed to order **Circassian and Turkish Walnut Logs**
High Grade Native Cabinet Woods and Veneers

Memorandum of Stocks on Hand and Prices on Application

The Martin-Barriss Co., Importers, Cleveland, Ohio

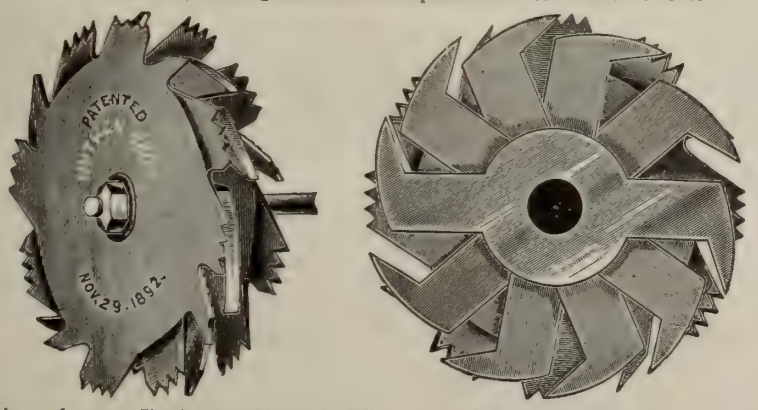
An Up-to-date Cross-cutting Machine

Made only by— **Butterworth & Lowe**

Send for Descriptive Price List. 221 Huron Street, Grand Rapids, Mich.

HUTHER BROS. PATENT GROOVER OR DADO HEAD

For cutting any width groove from one quarter inch to 2 inches or over



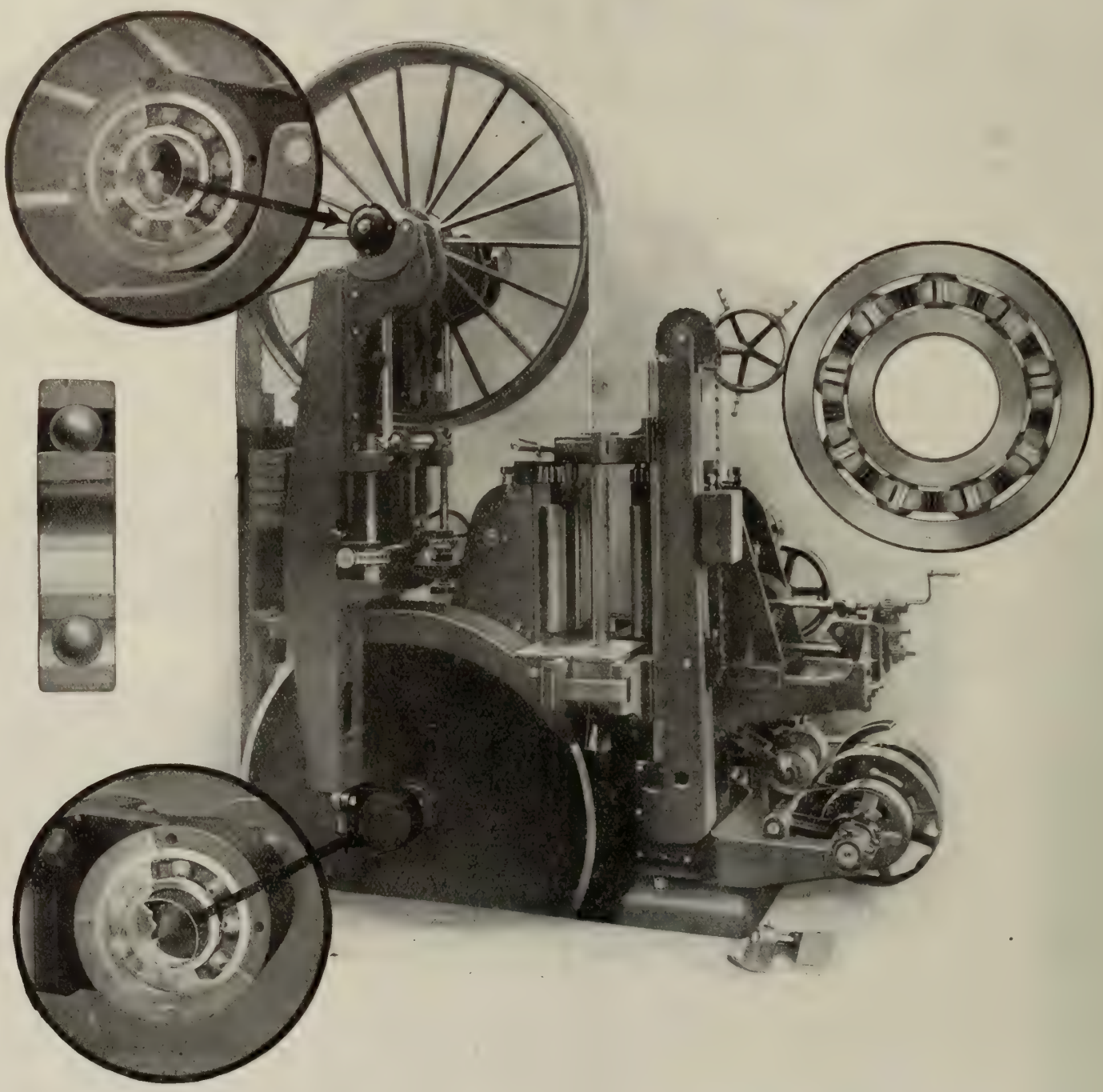
Can be used on any Circular Saw Material. Will cut a perfect groove with or across the grain. This is the only Dado Head on the market that gives entire satisfaction on all classes of work. No screw adjustment. For different width grooves, simply remove or add inside cutters. Sold by builders and dealers of wood working machinery in all parts of the United States. Will send on approval, in competition with any other make on the market; if not the best return at our expense.
HUTHER BROS., SAW MFG. CO., Inc., 1170 University Ave., ROCHESTER, N.Y., manufacturer of Circular Saws, Morgan Pattern Lock-Corner Box Cutters, Concave Saws, etc:

We Can Supply From Stock

Atkins, Hoe and Disston CIRCULAR SAWS, SAW BITS and SPRINGS.
Rubber and Leather Belting, BEST BRANDS.
DISSTON "BEAVER" and SIMONDS CROSS CUT SAWS. PEAVIES and STOCKS, CHAIN, IRON and STEEL, SINGLE and DOUBLE BIT AXES, Etc,

Douglas & Co., Limited

Victoria Street, AMHERST, N. S.



The American No. 111 Band Resaw

was designed for the application of Ball-Bearings—that's the reason why it is a thorough success The adjustment is perfect, the alignment of the wheels is a thing you can depend upon. Some manufacturers have tried Ball-Bearings on their machines, and abandoned them—simply because the mechanical construction—(all right for ordinary babbitted boxes, perhaps)—would not do for Ball-Bearings.

Let us send you a large illustration of the best BALL-BEARING BAND RESAW on the market.

Sales Offices:
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JAMES D. LACEY WOOD BEAL VICTOR THRANE

James D. Lacey & Co.

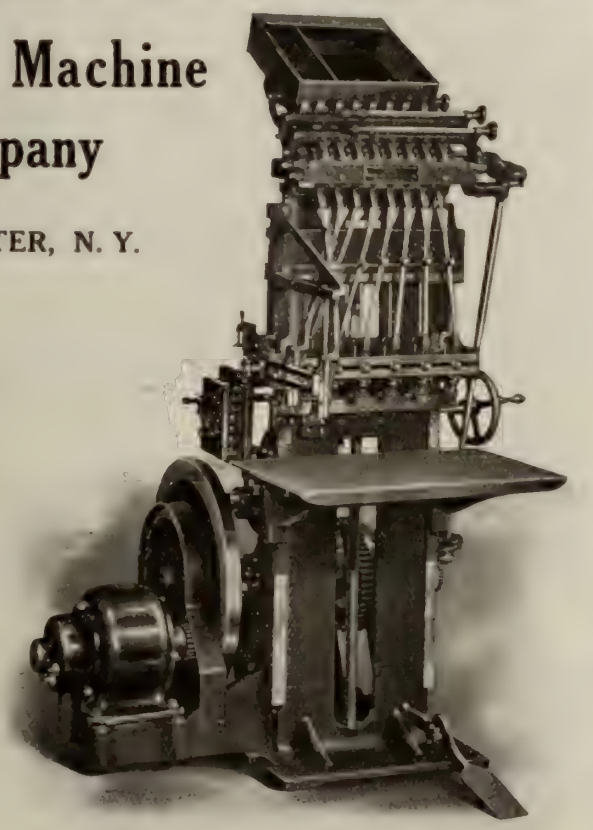
TIMBER LAND FACTORS and TIMBER VALUATORS

We submit **Detailed** estimates with **Topographical** maps of all **Timber Properties** offered through our house Representations based upon our own **Expert** cruisers and loggers, whose **Integrity** and **Experience** have been thoroughly tested over a period of many years.
We solicit correspondence with **British Columbia** timber owners and prospective purchaser

1215 Old Colony Blk. CHICAGO | **1211 Whitney Central Bldg. NEW ORLEANS** | **1104 Spalding Bldg. PORTLAND, Ore.** | **1009 White Bldg. SEATTLE**

Morgan Machine Company

ROCHESTER, N. Y.



Manufacturers of

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.

Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N.Y.

"Dolphin" Waterproof Belting

is the answer for belting troubles in wet places.

Leather belting is acknowledged to be better and cheaper than any other kind of belting for wet places, providing it is waterproof and that the laps will not come apart.

Dolphin Waterproof Belting is guaranteed to meet all these requirements.

WE SOLICIT A TRIAL ORDER

PROVIDENCE BELTING CO.
PROVIDENCE, R. I., U. S. A.
Office and Factory, 25-39 Charles Street.

Boss Line Lumbering Tools

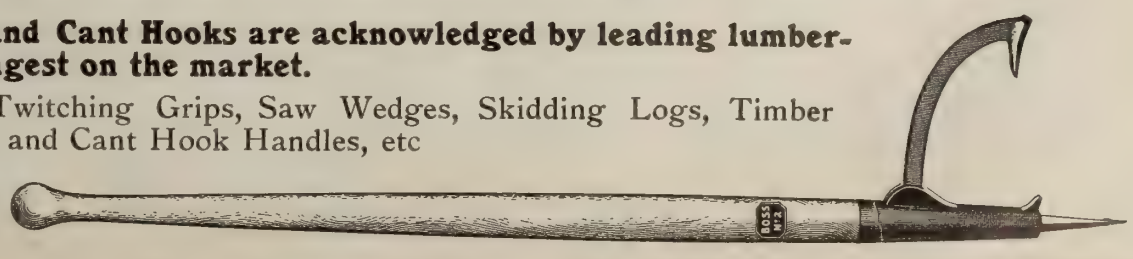
Manufactured by

The McFarlane-Neill Mfg. Co., Ltd., St. Mary's, N. B.

Forged Steel Socket Peaveys and Cant Hooks are acknowledged by leading lumbermen to be the lightest and strongest on the market.

Try our Steel Loading Blocks, Twitching Grips, Saw Wedges, Skidding Logs, Timber Carriers, Split Rock Maple Peavey and Cant Hook Handles, etc

Catalogues furnished and prices quoted on application



PROFIT by the Experience of Others

Thousands of firms throughout the continent testify the efficiency and economy of Beardmore Belting.

The price of their experience was the cost of a cheap belting, resulting in stretching and consequent loss of power.

Beardmore Belting has made enormous savings of power in power plants all over the country.

The maximum value is put into every piece of belting we manufacture.

The old fashioned oak tanning of No. 1 Packer Steer Hides produces a leather unequalled for solidity and tensile strength.

The utmost stretch is taken from the leather by improved methods which without injuring its life give the greatest belt efficiency possible.

Get information about Beardmore Belting.

It may mean much help to you in the long run to send for catalogues now.

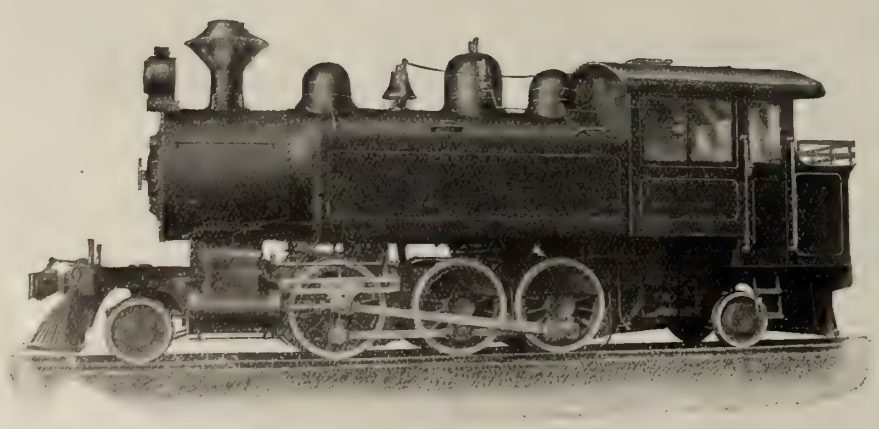
The General Supply Co. of Canada, Limited

356-58-60 Sparks Street, OTTAWA, ONTARIO

Market and Louise Sts., WINNIPEG, MAN. - - 115-125 Adelaide St. West, TORONTO

SELECTION OF LOCOMOTIVES

WHAT SHOULD BE KNOWN BEFORE YOU PURCHASE LOCOMOTIVES:—



Nature of the service.
Capacity of the cars and weight of train.
Character of track—is it new or old.
Length of haul.
Is time an important factor.
Do you want a quick locomotive or a big puller.
Distance from base of supplies and quarters for the men.
Water and coal carrying capacity.
All these items and more should be considered.
A careful study of conditions may mean larger profits.
Our experience may be valuable in considering them.
A dollar saved is more than a dollar earned.

Write or wire us, or better still, come to see us.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

Makes It's Mark Vivid and Lasting

Marks that remain vivid and wear like iron are a real satisfaction to the man who handles lumber. The metallic pigments, like graphite, of DIXON'S LUMBER CRAYONS offer marvelous resistance to all kinds of weather conditions. Their marks are often visible after six months of severe exposure to sun and storms.

DIXON'S LUMBER CRAYONS

have always remained the recognized standard because of their one, uniform and dependable quality; their convenient and uniform shape and size and because of the careful selection of materials used in their manufacture. DIXON'S LUMBER CRAYONS are made in nineteen grades and colors, including black (six grades), red (two grades), blue (two grades), green, white, yellow, brown, terra cotta, violet, pink and orange. Some are made to fill particular needs—let us tell you more about them. Get acquainted.

Write for lithographed booklet No. 239, illustrated in colors.

Joseph Dixon Crucible Company
Jersey City, U. S. A.

James W. Sewall
Forester and Surveyor

Mapping and Surveying of Wild Lands
Estimation of Timber and Working Plans

(Formerly forestry manager of the Appleton & Sewall Co.)

16 Centre Street
Old Town, Maine, U.S.A.

"John Bull" *Larrigans*

Wear Like Iron

WE tan the leather these larrigans are made from and know they will stand all kinds of wet and rough usage when properly cared for. We put a counter stiffener in our larrigans and sew it in with the leg when soled and heeled—a very durable feature in our goods.

Next time you buy larrigans see that you ask for **"John Bull."**

R. M. Beal Leather Co. Limited
LINDSAY, Ontario

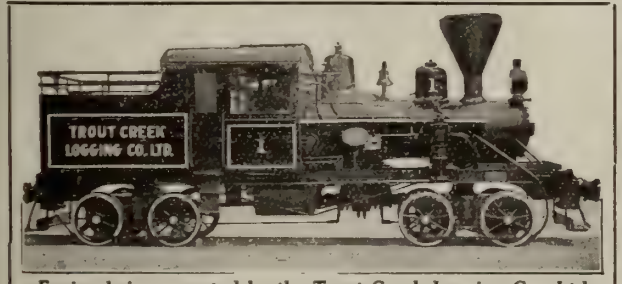
Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

HEISLER GEARED LOCOMOTIVES



Engine being operated by the Trout Creek Logging Co., Ltd. of Toronto, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works
ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

Lumber Horses

We are specializing this season in an extra fine line of Lumber Horses, guaranteed to be young and sound in every particular, and of extra weight and quality.

Consignments of heavy horses received regularly from the best shippers of heavy horses in Ontario.

Clean and sanitary barn s under Government Inspection.

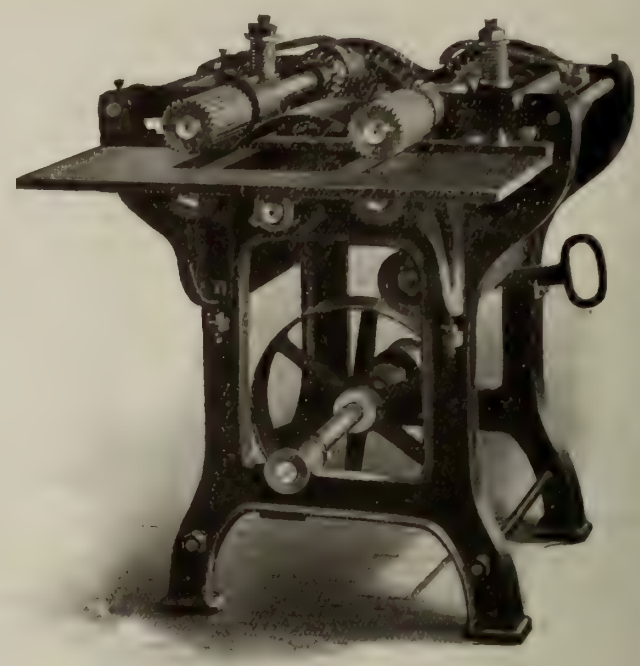
Loading chutes at Barn Doors via all railways,

We can supply your wants on the very shortest notice.

WRITE US YOUR REQUIREMENTS

Union Stock Yards of Toronto, Limited
HORSE DEPARTMENT "The Place to Buy them Worth the Money"

Self Feed Rip Saw



Self Feed Gang Saw

The Stuart Machinery Co., Ltd.
WINNIPEG, MAN.
Agents for Saskatchewan, Alberta and Manitoba

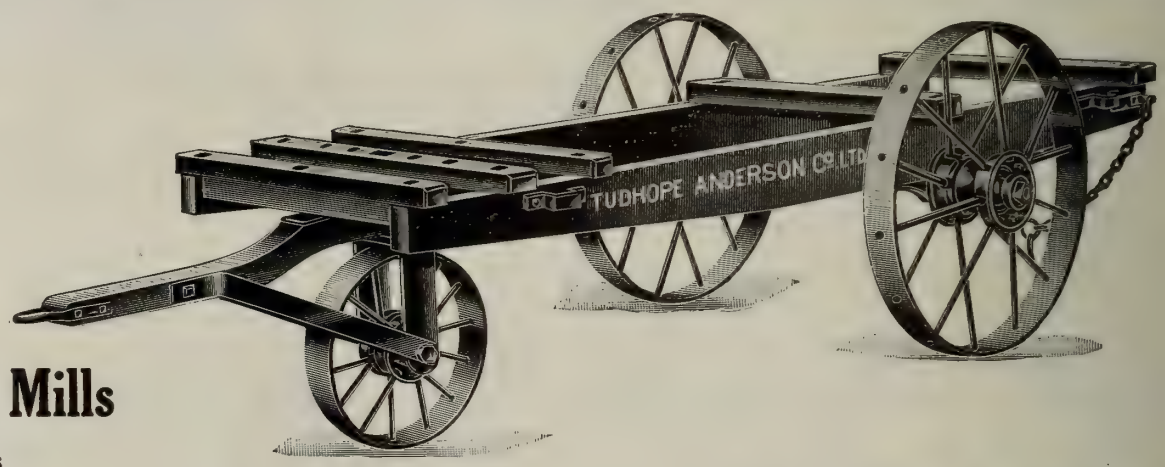
Write for catalogue. It illustrates many special Box Factory and Saw Mill machines

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.

Three Wheel Lumber Cart

with Wide Tire Steel Wheels

Used in trains or singly for platform work.



Dump Carts for Saw Mills

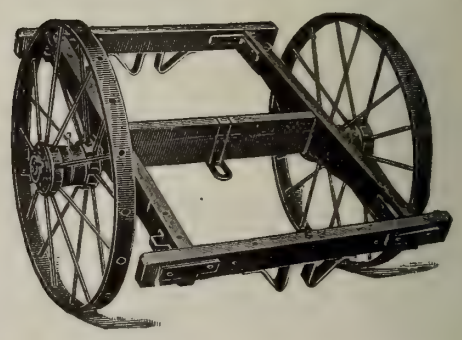
with Wide Tire Steel Wheels

In ½, ¾ and 1 Cord Capacity—extra strong of thoroughly seasoned hardwood and bolted throughout.

Detachable Lumber Trucks

with Wide Tire Steel Wheels

for Saw Mills, Planing Mills, Lumber Yards, etc.



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Successors to TUDHOPE-KNOX CO., LIMITED

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We manufacture and carry a complete stock of wire rope for all requirements.

Alligator Ropes—Haulage Ropes—Ballast and Wrecking Ropes
Wire Rope Fittings of all Descriptions
Blocks — Clips — Thimbles — Shackles, Etc.

The Dominion WIRE ROPE Co., Limited

MONTREAL

General Supply Company of Canada Ltd.—Winnipeg Agents

MAPLE LEAF BELTING

Strong
Waterproof
True
Running

For
Indoor or
Outdoor
Work

¶ Maple Leaf is the most economic and efficient belting for power transmission and conveying, etc.

¶ It costs only half as much as leather and 25 per cent less than good rubber belting.

Write for sample and prices to the sole manufacturers

DOMINION BELTING CO.

HAMILTON, CANADA

RUBBER GOODS FOR LUMBERMEN

Belting—Our long experience in the making of Rubber Belts enables us to specialize on this line. "Monarch," "Red Strip" and "Lion" are our leading brands for power transmission. (Write for Booklet B-1.)

Packings—"Redstone" High Pressure Sheet Packing has proved by test that it will outlast any other similar packing on the market. We make Spiral and Ring Packings, etc., that are equally reliable. (Booklet P-1.)

Hose—for Steam, Water, etc., etc., in various grades, made especially to give satisfactory and economical service under different conditions. (Booklet H-1.)

Fire Hose—One or more of our twenty brands of Fire Hose will be found, not only in the best equipped Factories, Mills, etc., but in almost every Fire Department in the Dominion. (Booklet H-1.)

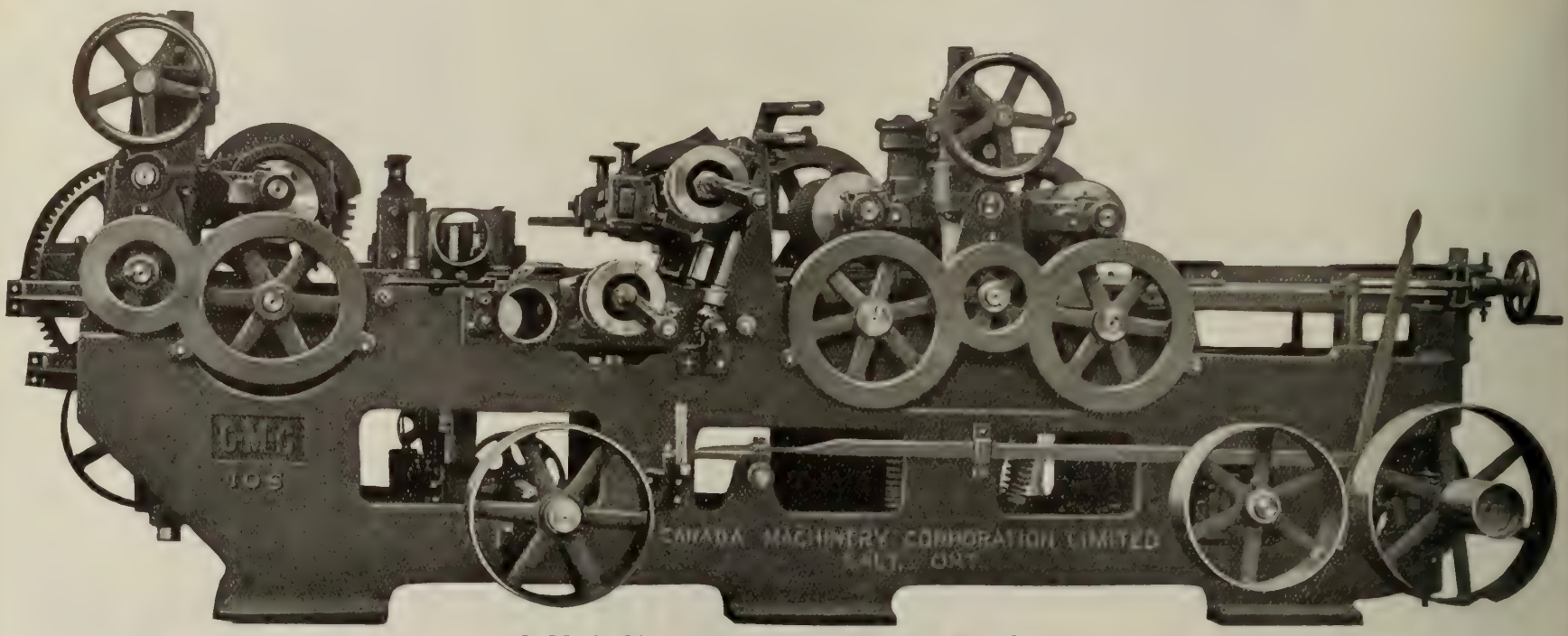
The Gutta Percha & Rubber Mfg. Co. of Toronto, Limited

TORONTO MONTREAL HALIFAX WINNIPEG CALGARY VANCOUVER

No. 105 MATCHER

C.M.C.

No. 105 MATCHER



C. M. C. No. 105 Medium Weight Matcher.

Our No. 105 Matcher is not our heavy duty fast feed machine but is a high grade medium weight matcher. It is a general purpose machine and for work up to 100 feet per minute ; is without an equal.

It is supplied with five rates of feed from 45 to 100 feet per minute.

Bulletin No. 105 fully describes this machine and will be gladly sent on request.

Have you our complete catalogue? If not let us send you one.

We Make the Most Complete Line of Woodworking Machinery in Canada

Canada Machinery Corporation Limited

GALT, ONTARIO

$3.00

Will rent a

Light Touch Monarch

for one month.

$15.00

Will rent a

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for six months.

Sold EASY PAYMENT Plan

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144 Bay Street - - Toronto, Ont.

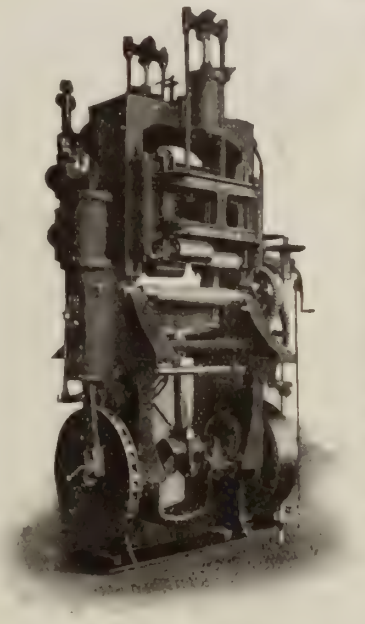
WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips **Cedar Siding** **Shiplap**
Silo Stock **Door Stock** **Box Lumber**
Boards

from cants and flitches, from either hard or soft woods.



ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES —taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install ecomony by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

Think it Over Carefully, then Write us for Details.

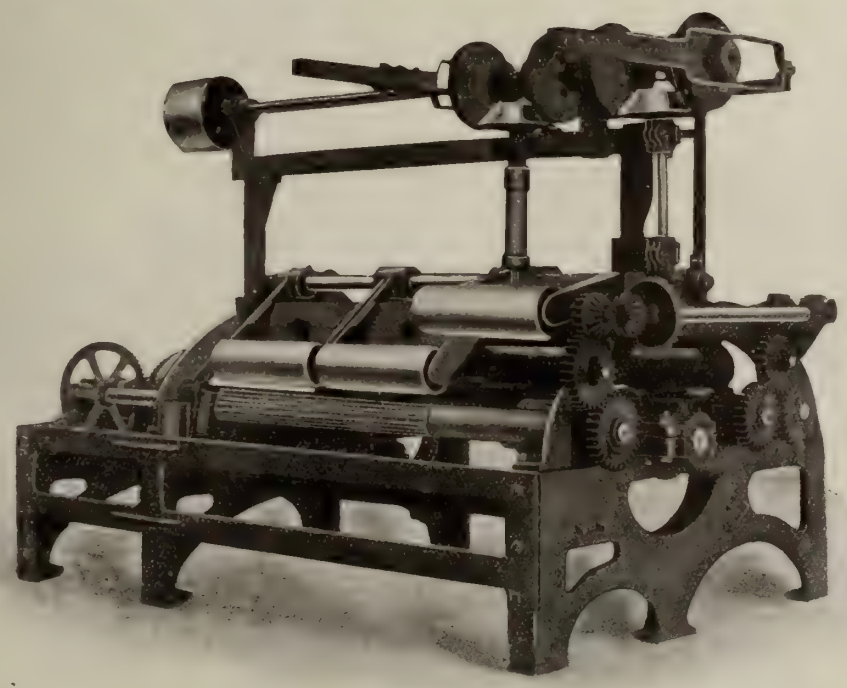
"The Gang cannot Overslab."

Wickes Brothers

410 White Building - - SEATTLE, WASH.

Head Office. Saginaw, Michigan, U. S. A.

Mowry's Jumbo Edger



Our latest model is an improvement on the one illustrated here

Mowry's "Jumbo" Combined Gang and Edger is the most useful mill machine on the market to-day.

It embodies every detail of construction essential to an adequate gang edger. ¶ We have some very flattering testimonials for our "JUMBO."

Mandrel: 4½ inches by 10 feet 6 inches long.

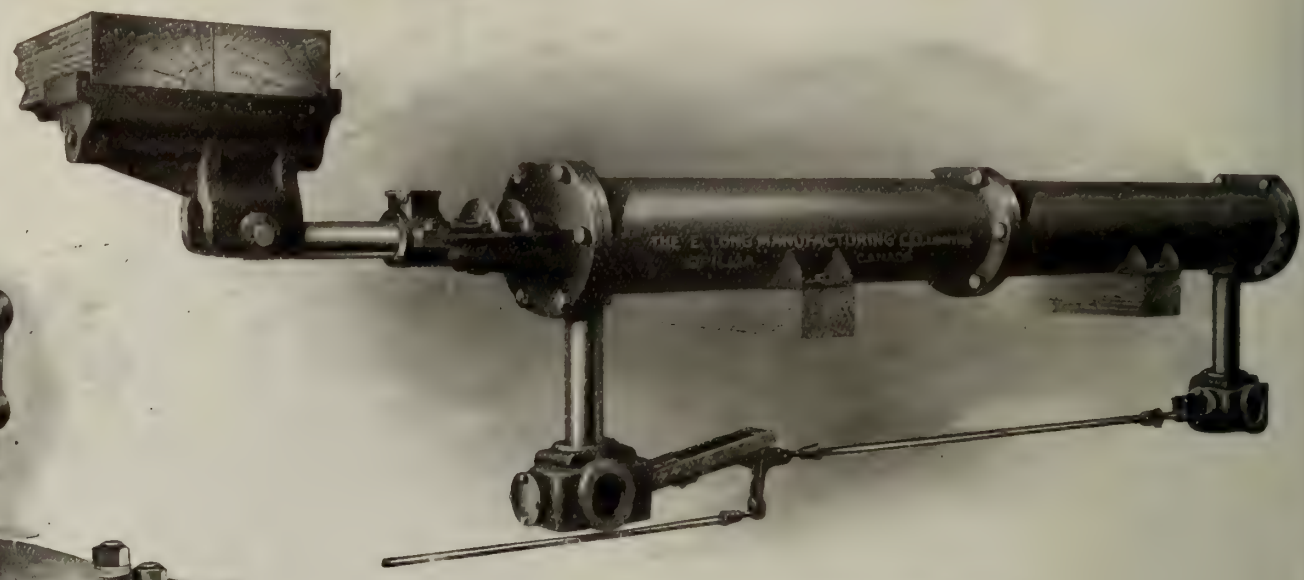
Drive Pulley: 20 inches, 20 inches.

Saws: 2 movable saws on edger side (more if desired) 8 stationary saws on gang side, 2 water boxes.

Let us quote you when you are in the market for Saw, Lath or Shingle Mill Machinery or Repairs.

MOWRY & SONS, Gravenhurst, Ontario

The Mark THE E. LONG MANUFACTURING CO. SAW MILL MACHINERY ORILLIA, CANADA *of Quality*



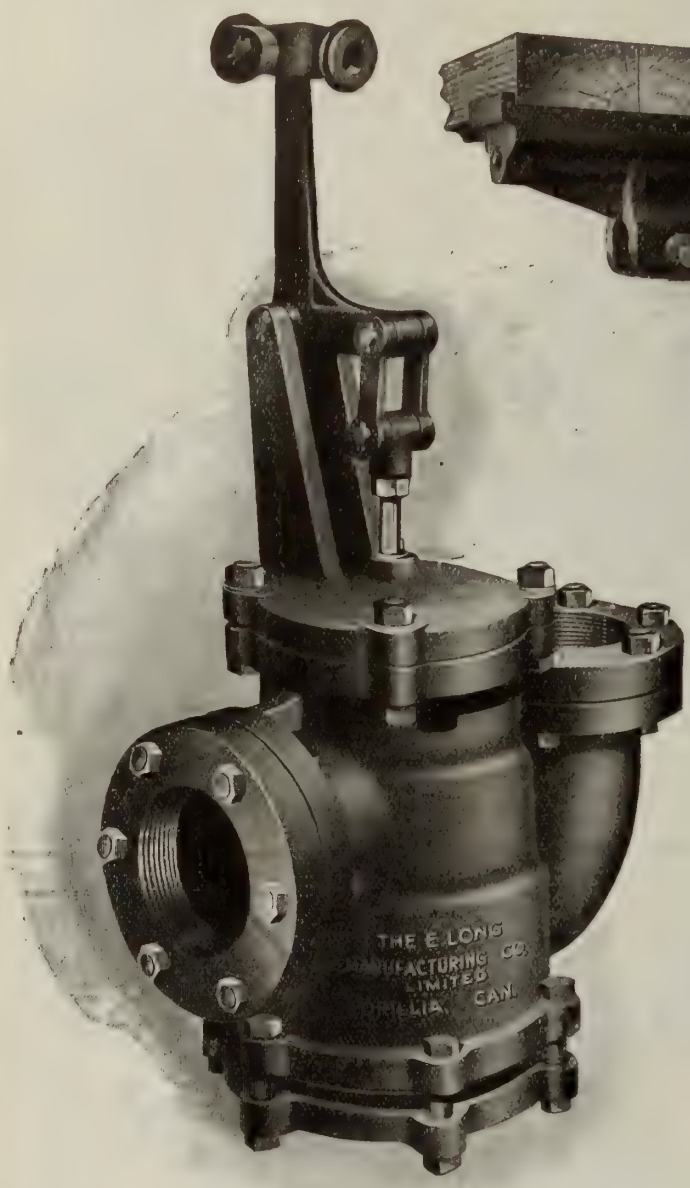
Direct Acting "Shot Gun" Feed

Built in sections to make up any length feed required, with 8 in., 10 in., 11 in., 12 in., and 14 in. bore.

We fit our feeds with **any style of valves required.**

Our "Gun Shot" feeds are money makers wherever used.

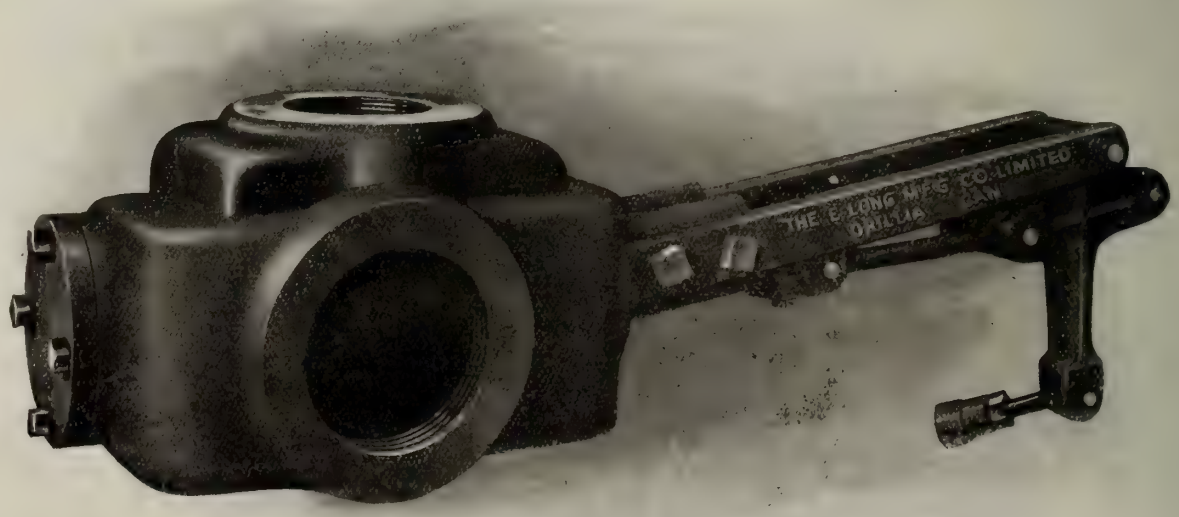
FULL PARTICULARS ON APPLICATION



Vertical Steam-Feed Valve

We guarantee that our Valves will not stick or kick. They are perfectly steam tight and are without exception the most economical valves manufactured.

We not only manufacture a complete line of steam feeds, but also a complete line of steam actuated machinery for saw mills of any capacity.



Double Model "D" Valve

The E. LONG MANUFACTURING CO., LIMITED, Orillia, Ont.

AGENCIES:

MONTREAL—Williams & Wilson, Ltd.
WINNIPEG—Stuart Machinery Co., Ltd.
EDMONTON and CALGARY—Gorman, Clancey & Grindley, Ltd.
VANCOUVER—Robert Hamilton & Co.

ROSSING MILL EQUIPMENT

THE WITHAM JR. AUTOMATIC BARKING ATTACHMENT

A steam operated barking attachment capable of turning out 30 cords of perfectly barked wood per day. **How much are you barking with your equipment?** We are the only Canadian builders of this machine.

Bulletin No. 201

THE building of Rossing and Pulpmill equipment is not a new line with us. For over 30 years our machines have been cutting and handling pulp wood in many of the largest mills in this country.

If you are erecting a new Rossing Mill or are re-building or adding to your present equipment you should have our catalogues. An investigation of our line will certainly repay you.

We manufacture:

Pulp Log Haul Ups
Cutting Up Rigs
Slasher Tables
Barker Attachments
Barkers
Pulp Wood Splitters
Conveyors and Elevators
Engine and Boilers

These machines are the last word in up-to-date Rossing Mill equipment. They are turned out in a separate department—not as a side line—by an engineering staff and skilled mechanics who have specialized in this work.

We have records in this office of some of the most successful Rossing Mill installations operating in Canada to-day. These are at your disposal. Write us and let us show you how to build "The Rossing Mill Up-to-date."

The Waterous Engine Works Co., Ltd.

BRANTFORD, CANADA

Winnipeg, Manitoba — Vancouver, B. C.

$5,000,000.00

worth of mixed metals is what we market every year

PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.

Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

We solicit your patronage

HOYT METAL CO., Toronto, Canada

New York, N. Y. **London, England** **St. Louis, Mo.**

BATTS LIMITED

WEST TORONTO

MANUFACTURERS OF

Staved Columns
Veneered Doors
Newel Posts
Sashes - Flooring
Trim
Pine Doors and Frames
Turned Newel Posts and Balusters
Cypress Greenhouse Material

BATTS LIMITED

MANUFACTURERS

WEST TORONTO, ONT.

The J.C. McLaren Belting Co.
Limited

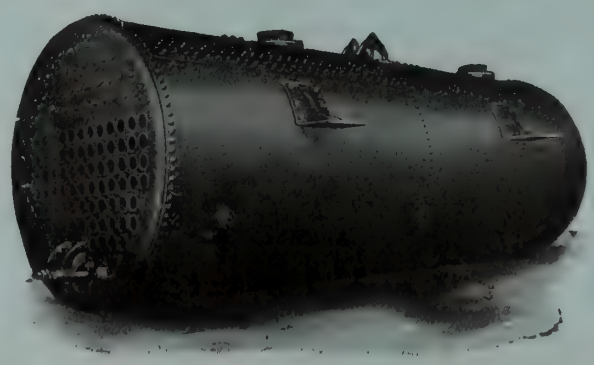
General Mill Supplies **MONTREAL**

The John Inglis Company, Limited

Engineers & Boiler Makers

"Inglis" Boilers are the Best

Write us for quotations



BOILERS

We Make

Return Tubular, Scotch Marine, Fitzgibbon, Scotch Dryback, Locomotive, Water Tube.

14 Strachan Ave. **Toronto, Canada**

Canada Lumberman & Wood Worker

Time is Money

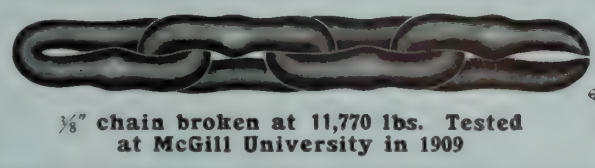
The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.



A Test Like THIS

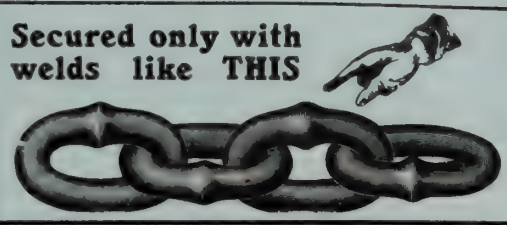
⅛" chain broken at 11,770 lbs. Tested at McGill University in 1909

25% More Weld = 25% More Strength = 25% More Wear

Tested Steel Chain made at St. Catharines, Ont.

Sold by McKinnon Chain Co. BUFFALO, N.Y.

Secured only with welds like THIS



STRONG GRIPPING POWER

One of the characteristic features of Dick's Belting is the strong gripping power, which ensures the transmission, positively without loss, of the whole power given off by the engine. The entire absence of stretching or slipping is another important quality Dick's Belts possess. It will pay you to investigate these belts before buying any other make.

Get a copy of Catalog No. 17.

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys Steel Pulleys Saw Mill Supplies Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults

Montreal Toronto St. John, N. B. Winnipeg Calgary Vancouver 2

F. REDDAWAY & COMPANY

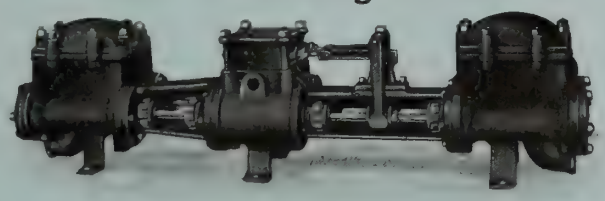
SOLE MAKERS OF

"CAMEL HAIR" "CAMEL" BRAND TRADE MARK REG. BELTING

STITCHED CANVAS BELTING
THE "CAMELATA" BELTING
REGISTERED
LINEN FIRE HOSE

MONTREAL Write for Booklet. TORONTO

Steam Pumps, Vacuum Pumps, Condensers, Triplex Power Pumps, Centrifugal Pumps and Travelling Cranes



The Smart-Turner Machine Co., Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

Alphabetical Index to Advertisers, page 60

When You Get Ready to Buy—

Suppose you want a sawyer, or a setter, or a filer, or some other man for your mill, right at the start don't you usually ask every applicant,

"What experience have you had?"

And if one has been a filer or a sawyer say for ten or fifteen years, and has specialized in his trade, aren't you inclined to take him on?

You're making strong play on experience in this case.

Now, buying sawmill machinery is simply employing some one to work for you,

And experience in this case is far more important.

Because it is only as a result of experience that a manufacturer can design and build his machines properly.

And because you have to depend on your machines to keep down your sawing cost and at the same time cut good lumber, and if they're not correctly designed and well built, how can they do the work they ought to and that you pay for?

Our experience has been long enough—over fifty years, but

We've had the right kind of experience, too. We've always built machinery for stationary mills only. We have never built any other kind, so you see, **we're specialists of more than fifty years' standing in heavy sawmill machinery.**

You can get all this experience for nothing, because our prices are no higher than you will pay anywhere for good machinery.

When you are placing your orders for new equipment this winter, give this question of experience the consideration it deserves.

William Hamilton Co., Limited

Peterborough, Ontario

VIEW OF OUR MILL AND BOOMS

PINE LUMBER

Cut from the best pine timber in Ontario is what we have to offer our many patrons in Canada and the United States.

We don't want to dissapoint you therefore anticipate your requirements as far ahead as possible for

Norway or White Pine Lumber, Railroad and Structural Timbers, Flooring, Ceiling, Moulding, Siding, Cross-arms, etc.

Place your order now for next year's dimension stock

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Dry Lumber For Sale

View of Saw Mills, Pembroke, Ont.

White and Red Pine, Spruce, etc.

100,000 ft.	5/4 x 4/7	x 12/16	S.C.W.P.
200,000 ft.	6/4 x 4/7	x 12/16	" "
100,000 ft.	1 x 8 & up	x 12/16	" "
100,000 ft.	5/4 x 8 & up	x 12/16	" "
200,000 ft.	6/4 x 8 & up	x 12/16	" "
200,000 ft.	2 x 8 & up	x 12/16	" "

(All Box Out)

ROUGH OR DRESSED

Fast Feed Planing Mill in Connection.

Send us your enquiries

The Colonial Lumber Co., Ltd.

Pembroke, Ont.

WHITE AND RED PINE

SCENE IN THE SHIPPING YARDS

For prompt shipment we offer the following stock subject to prior sale :—

2 x 5 /up x 12/16 Red Pine
Mill Run 400,000 ft. B. M.

2 x 5 /up x 12/16 White Pine
Mill Run 300,000 ft. B. M.

1 x 12 x 12/16 White Pine
Mill Run 600,000 ft. B. M.

Write us your requirements

JOHN LUMSDEN, Lumsden's Mills, Quebec

Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office: — Pacific Building, VANCOUVER, B. C.**

Long Lumber Company

Head Office
Hamilton, Ontario

Branch Office
Traders Bank Building
Toronto, Ont.

IN GOOD SHIPPING CONDITION, AT PARRY SOUND

150,000 ft.	2 x 4 — 10 16	Red Pine	
150,000 ft.	2 x 6 — 10 16	"	
150,000 ft.	4 x 4 — 10 16	"	
150,000 ft.	1 x 4 — 10 16	"	Flooring Strips

4/4, 5/4, 6/4, and 8/4 Clear and Clear Face Norway.

We have 10 cars of 3X B. C. Shingles in transit.

WRITE FOR PRICES

Wm. Milne & Son, Ltd.

Manufacturers:

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.

Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

Spanish Mill

White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel shipment only.

THE M. BRENNEN & SONS MFG. CO.

HAMILTON, ONT.

MATCHING, DRESSING AND RE-SAWING

done in transit at lowest prices. We are equipped to dress and bore heavy Georgia Pine Timbers.

Casey-Shaw Lumber Co. Limited

Sudbury, Ontario

Manufacturers of

Lumber and Lath

Planing Mill Work

SAW MILLS
Long Lake, Ont. and Blezard, Ont.

GENERAL OFFICE
Sudbury, Ont.

For Quick Sale

We have the following stock which we want to move at once.

Three cars 3" Hard Maple No. 1 C & B. 90% 1s & 2s.
Three cars 1¼" & 2" Soft Maple No. 2 C & B.
Five cars 1" No. 1 C & B. Hard Maple.
Five cars 5/8" x 4" & up good Spruce Choice crating stock.
Three cars 1" x 4" & up Spruce Mill Culls.

The Glengarry Lumber Co., Limited

Berlin, Ontario

JOHN GILLIES
President

DAVID GILLIES
Vice-President

J. S. GILLIES
Sec.-Treas

Established
1873

GILLIES BROS. Limited

Mills & Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

Cedar Shingles and
Railway Ties

RED PINE, SPRUCE, HEMLOCK, CEDAR

Planing Mill, Yard & Office
MORRISTOWN, N.Y.

CAPACITY 40,000,000

New York City
Guy E. Robinson, 1123 Broadway

The

Georgian Bay Lumber Co.

Limited

Waubaushene, Ontario

Manufacturers of High Grade

Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers
Mills at Deschenes, Que., near Ottawa

White Pine
Red Pine
Spruce
Lumber and Lath

Office, Castle Building 53 Queen St. Ottawa, Can.

F. N. WALDIE, President. R. S. WALDIE, Vice-President. W. E. HARPER, Secretary.

The
Victoria Harbor Lumber Company
Limited

Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont. Head Office, 12-14 Wellington Street East, TORONTO, ONT.

I Told You So!!

This is the worn out song you will hear next spring if you do not provide NOW for your early spring requirements in

Hemlock and Spruce

We have a large stock of good Cull Hemlock and Cull Spruce to dispose of from 1″ to 3″ thick.

Norway Pine
Cedar Shingles
Spruce Lath

We can also fill orders, in any quantity, of **White Pine**—the finest well-watered stock obtainable. Always ready for shipment. We can dress or resaw.

☞ *Write for prices, etc.* ☜

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 1200 Claremont Ave., MONTCLAIR, N.J.

Hope Chambers, OTTAWA, CAN., Head Office

Timber Limits for Sale
on Georgian Bay

The undersigned offer for sale in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; Tug Scow and other Lumber Equipment, including boom chains, plows, sleighs, etc.

The Limits, part of which have recently been sold, include: 440 square miles of licensed and deeded Pine, Hemlock, Spruce, Birch and other timber. The licenses from the Ontario Government include all timbers and are not restricted for time. Government dues are as follows: Saw Logs, White Pine, $1.50 per M. ft., B.M. Saw Logs, Hemlock, Tamarac and other woods 75c. per M. ft. The timber is situated in the Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street. The Canadian Pacific, Canadian Northern and Grand Trunk Railways run through the limits, which makes some of the parcels offered for sale particularly desirable for small mill owners.

A circular giving full information, maps, terms and conditions of sale will be furnished upon application to

The Parry Sound Lumber Co., Limited

1315-20 Traders Bank Building, TORONTO, CANADA

Quincy Adams Lumber Co., Limited

MANUFACTURERS AND WHOLESALERS OF

White Pine, Birch, Spruce and Hemlock

Mills at
LONGFORD
KOSHEE
RAVENSWORTH

P. S. Special Price on Dry 4/4 and 5/4 good . Pine Strips and Sides.

Toronto, Canada
51 Yonge Street

The Rideau Lumber Co., Limited

Trafalgar Building, Ottawa, Ont.

We have—of 1911 sawing:

1 x 4, 1 x 5, 1 x 6—12/16′ S. C. and Dressing W. Pine
Factory Shorts and Sidings, 5/4″ to 8/4″—12/16 ″
1 x 4 and up—6/11′ No. 1 Dressing and Better ″

1912—1½″ x 4′ M. R. White Pine Lath.

JAS. PLAYFAIR D. L. WHITE

PLAYFAIR & WHITE

Manufacturers and
Wholesale Dealers

Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

Knowles & O'Neill

WHOLESALE

Lumber, Ties, Pulpwood

Etc.

COMPLETE STOCK OF
Quebec Spruce and Pine Lumber
ALWAYS ON HAND

An exceptionally nice lot of 2″ Pine, well seasoned, for sale, also 1″, 2″, 3″ Spruce, Square and Waney Spruce and Cedar.

Correspondence Solicited. Room 4, Hochelaga Bank Building **Quebec, Que.**

The Golden Lake Lumber Co.

Limited

MANUFACTURERS OF

Lumber, Lath and Shingles

Offer at LOW FIGURE for QUICK sale:

80,000′ 2 x 4 & up 6/16′ No. 1 White Pine Mill Cull
20,000′ 2 x 4 & up 6/16′ No. 2 White Pine Mill Cull
18,000′ 1 x 4 & up 6/16′ Log Run, Dead Culls out White Birch
125,000 pcs. 1½ x ⅜ x 32″ Mill Run Hemlock Lath

All of above, shipment G. T. R. from Golden Lake, Ontario

Head Office: - EGANVILLE, ONT.

THE trend of trade is now towards our **CUTLER** Mills, when customers want anything at **BAY** ports for water or rail delivery, and our **LUMBER** is selling itself by repeat orders from any **COMPANY** to whom we make a shipment. Our stock is **LIMITED** but we still have a goodly quantity to dispose of at prices worth while considering.

DON'T BUY TILL
YOU GET OUR
PRICES

The Eyer Lumber Co.

34 Victoria Street, Toronto
are Selling Agents

Cameron & Co, Limited

Manufacturers and Wholesale Dealers

LUMBER, LATH, SHINGLES, TIMBER, POLES and POSTS

We have to offer 1912 cut

1″ and 2″ White Pine Box and Better
1″ " " Mill Culls
1″ " " "O" Culls

Mill and Yard
OPEONGO, ONT.

Head Office
OTTAWA, ONT.

Send your enquiries to our Head Office

The McLennan Lumber Co., Limited

Everything in Lumber
Rough and Dressed
Wholesale and Retail

WRITE US FOR PARTICULARS

21 Dorchester Street West, MONTREAL, QUE.

The Hurdman Lumber Co.

OTTAWA, CANADA Limited

EASTERN

Pine, Spruce, Hemlock, Hardwoods, Timber, Lath and Shingles

WESTERN

British Columbia Timber

at Lowest Prices and any Sizes.

We are open to BUY cuts of Pine; Spruce; Hemlock; Basswood and Ash; and will be pleased to hear from manufacturers having anything to dispose of for cash, will also make contracts now for Basswood to be taken out this winter.

Pine, Spruce, Hemlock, Basswood, Lath

INQUIRE OF

C. A. SPENCER *Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles*

Eastern Townships Bank Building, MONTREAL, Quebec

Toronto Representative: A. T. Dadson, 42 Duggan Ave.

Williams Lumber Company

Wholesale Dealers in

White and Red Pine, Spruce and Lath
ROUGH OR DRESSED

For 5 4 x 4 7 x 12 16 fine dressing strips
6 4 do. do. do.
8 4 do. do. do.
write us before placing your orders.

18 CENTRAL CHAMBERS - OTTAWA, ONT.

Edward Hines Lumber Co.

(Branch Office)

Parry Sound, Ont.

All grades of

WHITE PINE

and

Norway Dimension Bill Stuffs

WHITE and RED PINE LATH

WILLIAM H. BROMLEY

Wholesale Lumber

Aux Sable River Forest Reserve Timber Produces Best Lumber in Ontario.

Every lumber dealer and consumer in Western Ontario, Buffalo, Detroit, Central New York and Montreal knows what excellent lumber is produced from Playfair & White's mills at Midland, Ont. I can offer you from that point, all sizes of White Pine and Norway Pine; any quantity of the choicest lumber in the Georgian Bay district. These mills will commence sawing about May 15th.

SPECIAL:—The best block of Basswood in Ontario. estimated 2,000,000 ft. I am prepared to offer, sawn to any size required.

Other stocks of Pine, Hemlock and Spruce at Pembroke, Ottawa and Collingwood.

Quotations promptly given and enquiries solicited

Pembroke - - Ontario

ESTABLISHED 1855

THE McGIBBON LUMBER CO.

OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

Hemlock Billstuff a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

JOHN MCKERGOW, President — W. K. GRAFFTEY, Managing-Director

The Montreal Lumber Co. Limited

Wholesale Lumber

Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W

WHOLESALE DEALERS

SPRUCE

13 Foot and 16 Foot

Lath and White Cedar Shingles

CHRISTY-MOIR CO.

149 Broadway, New York City

THE

Brockville Lumber Company

LIMITED

Brockville, Ont.

Morristown, N.Y.

Wholesale and Retail

Lumber, Lath, Shingles, Bill Stuff

And all kinds of SASH FACTORY and PLANING MILL GOODS.

McLennan Timber Lands and Lumber Co. Limited

Selling Agency and Dealers in all kinds of

Timber Lands

Offices: Gazetteville, N.Y.
Quebec, 138 St. Peter St.

RAILS For Tramways, Sidings, Etc. New and Second Hand

YARD LOCOMOTIVES

John J. Gartshore

58 Front St. W., TORONTO

Hardwood Flooring

The Celebrated Diamond Brand

End Matched, Bored, Polished and Bundled

Manufactured by

SIEMON BROS., LTD.

For prices write

W. T. EAGEN

Selling Agent for Ontario and Quebec

203-4 McKinnon Bldg.

Phone M. 6316 TORONTO

Pine Doors

That Are Right

Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

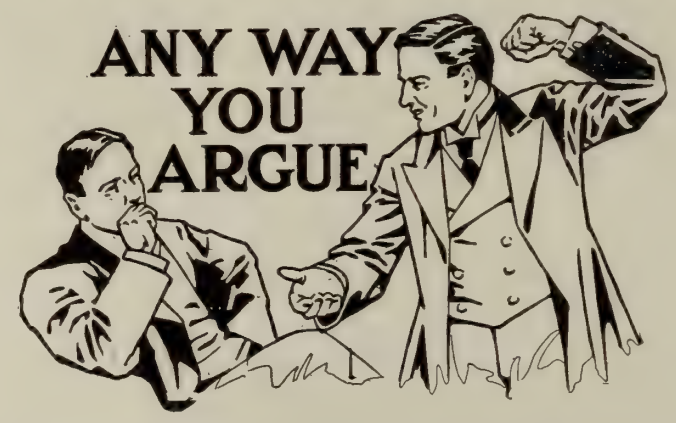
No. 3 Pine Doors

THE

Pembroke Lumber Co.

Pembroke, Ontario

Don't Hesitate



You know the old proverb "He who hesitates is lost"—Well, of course, we know that that is contradicted by the just as old proverb "Look before you leap"—The logical conclusion therefore is—"you can't do both." But that is just the trouble with many business men. They take a good look and then they hesitate. There is no need to hesitate in deciding where to purchase

Hemlock, Pine and Hardwood

You are quite safe in coming to us—we will give you the best on the market at the right price.

Write us for quotations—take a good look at our proposition then send us your order at once..Don't Hesitate.

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

We have the following stocks in good shipping condition:

1-in. Birch, No. 1 com. and bet., 167,000 ft.
1-in. Birch, No. 2 com. and bet., 70,000 ft.
1¼-in. Birch, No. 1 com. and bet., 30,000 ft.
1½-in. Birch, No. 1 com. and bet., 30,000 ft.
2-in. Birch, No. 1 com. and bet., 30,000 ft.
3-in. Birch, No. 1 com. and bet., 30,000 ft.
1-in. Maple, No. 2 com. and bet., 60,000 ft.
1½-in. Maple, No. 1 com. and bet., 70,000 ft.
3-in. S. Elm, No. 1 com. and bet., 30,000 ft.
2-in. S. Elm, No. 1 com. and bet., 12,000 ft.
1-in. White Bass, 10,000 ft.
1½-in. White Bass, 1,000 ft.

Want to buy Elm and Hemlock?
Please let us hear from you.

The Meaford Lumber Company

Toronto Office, 539 Lansdowne Avenue.

The

North Channel Lumber Co. Limited

Successors to

SAGINAW LUMBER & SALT CO.

MANUFACTURERS OF

Pine Lumber

Saginaw, Mich. U.S.A.

Mills at Thessalon Ont.

WE Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

AUGER & SON

QUEBEC

HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.

NIAGARA FALLS, N.Y.

The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

Orillia, Ont.

R. LAIDLAW LUMBER CO.

LIMITED

Toronto

Sarnia

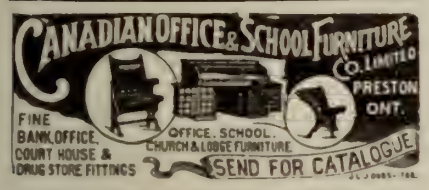
Buffalo

Imperial Timber & Trading Co.
LIMITED
VANCOUVER, B.C.
Branch Office:
18 Thomas Block,
CALGARY, ALTA.

Douglas Fir
Construction Timbers
any size up to 110 feet

High Grade XXX
Red Cedar Shingles

Export and Rail Shipments.


CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

GEO. I. McCLURE
Wholesale Hardwood Lumber
CYPRESS and SOUTHERN PINE
Specialties
MAHOGANY. WALNUT and CHERRY
Maple. Birch and Oak Flooring
Veneered Doors, Stiles and Rails
Can ship direct from Mills or from Detroit. I want to buy Birch. Maple. Basswood, and Elm.
Office, Yards and Warehouse
CLARK, PLUMER AVES. AND M. C. R. R.
DETROIT, MICH.

SPECIALTIES
Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie
Pine and Hardwood
Lumber
Lath and Shingles
North Tonawanda, N. Y.

"Well Bought is Half Sold"

SPECIAL STOCK OFFER

5 Cars	1" M. R.	Red Pine
5 "	1" C. & C. F.	"
3 "	6 4 "	"
1 Car	2" "	"
4 Cars	2 x 6 8-18	"
2 "	2 x 10-18'	"
2 "	1 x 8"	No. 1 Spruce
½ Car	1 x 10 12"	" "
½ "	5 4 x 8" Sel. M. R.	W. Pine
½ "	2 x 8 " "	"

Above all in shipping condition F.O.B. Midland.

Let us have the pleasure of quoting.

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine and Hemlock Lumber

730 Traders Bank Building, Toronto, Ont.

Mills: Byng Inlet, Ont.

We are Buyers of
Hardwood Lumber
Pine and Spruce
Veneers (3 or more ply) Handles (all descriptions)
Staves Hoops Headings
JAMES WEBSTER & BRO., Ltd.
Bootle, Liverpool, England
London Office:
Dashwood House 9 Broad St., E.C.
News Chambers, 57 Hope St., Glasgow

Cant & Kemp
52 St. Enoch Square
GLASGOW
Timber Brokers
Cable Address, "TECTONA," Glasgow
A1 and A B C Codes used

Smith & Tyrer Ltd.
Agents for Shippers of
SPRUCE, PINE, HARDWOODS AND OTHER WOOD GOODS.
Please Offer Stocks on hand.
26 Chapel St., LIVERPOOL

FARNWORTH & JARDINE
Cable Address: Farnworth, Liverpool
WOOD BROKERS and MEASURERS
2 Dale Street, Liverpool, and Seaforth Road, Seaforth Liverpool England

Saddle Tank Locomotives
Geared Locomotives
Steel Rails
Flat Cars
All Secondhand
Correspondence solicited
SESSENWEIN BROS.
Montreal

TORONTO WHOLESALERS

Full Stock Dry Pine and Hemlock

BILLS IN PINE AND HEMLOCK

Cut to Order

NEW TELEPHONE ADELAIDE 1783

The Fesserton Timber Co., Limited

15 Toronto St., TORONTO

Mills at FESSERTON, ONT.

JOHN DONOGH & CO.

Wholesale Dealers

Have HEMLOCK and SPRUCE for sale

Full stock in all grades and sizes

B.C. Cedar Shingles — N.B. Cedar Shingles

—WRITE US—

1205 TRADERS BANK BUILDING, TORONTO

When requiring quick delivery of

XXX B. C. Red Cedar Shingles

write, wire or telephone us. We now have Eighteen Cars in transit, a few being unsold.

C. A. Larkin Lumber Co.

Limited

627 Confederation Life Building

TORONTO

Do You Want a Salesman?

¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

LEAK & CO., LIMITED

18 Aberdeen Chambers

TORONTO, ONT.

We are in the market for Hemlock, Spruce and Hardwoods, also No. 1, 2 3 Lath.

Send us list of anything you have to offer.

Spears & Lauder

are open to contract to cut out this winter culls of Pine and Spruce timber logs, 12 to 30 feet long.

Head Office: 501 Kent Bldg., - TORONTO

The

Elgie & Jarvis Lumber Co.

Limited

18 Toronto Street, Toronto, Ont.

We are in the market for

Stocks of

Hemlock Lumber

We have two million feet of Hardwood to offer—

Maple 1″ to 4″.
Maple Good Squares 5 x 8 to 8 x 8
Birch 1″ to 4″. Elm 1″ to 4″.
Beech 1″ and 1 1/2″. Basswood 1″ to 1 1/2″.
Basswood 6/4 x 8 up, 1st. & 2nd.

Send in your inquiries, and we will name you low price and give you the grades.

C. G. ANDERSON LUMBER CO.

Manning Chambers, TORONTO

Dependable Quality . . . **The Path of Prosperity** *Reliable Service . . .*

Pine
Hemlock
Spruce
Hard-woods
Rough and Dressed

We make a Specialty of Long Timbers

Fassett Lumber Co.—View of Mill

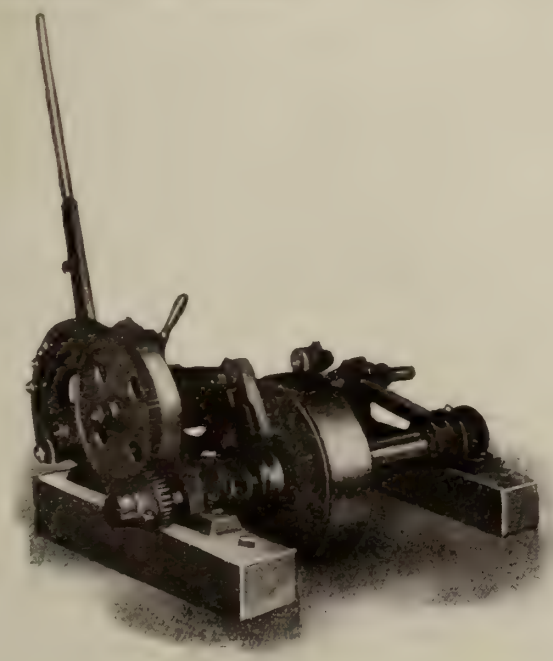
We have complete stock of well seasoned lumber for general yard trade and prepared to make prompt shipments to any market

Fassett Lumber Company, Limited

FASSETT, QUEBEC

The Importance of Efficient Mill Machinery

In Millwork, where every portion of the equipment has to undergo the severest treatment with unusually hard conditions only the best machinery will serve. No mill can be run at a profit with inferior equipment. This is an expression of the opinion of men of wide and varied experience in the business.



P. Payette's Improved Mill Machinery, is built to stand all the strain and hard usage of mill work. This machinery is of the special Payette design and embodies many improvements, which add considerably to the efficiency of mill equipment.

The New Patent Saw Mill Dog which operates in soft or hardwood timber of any kind will do good even work in summer or winter with perfect safety.

Payette's Improved Set Works will set even thickness of lumber in all class of timber and will set any size log with perfect ease, Can be changed instantly so as to make either thick or thin lumber and can be put on any make of carriage.

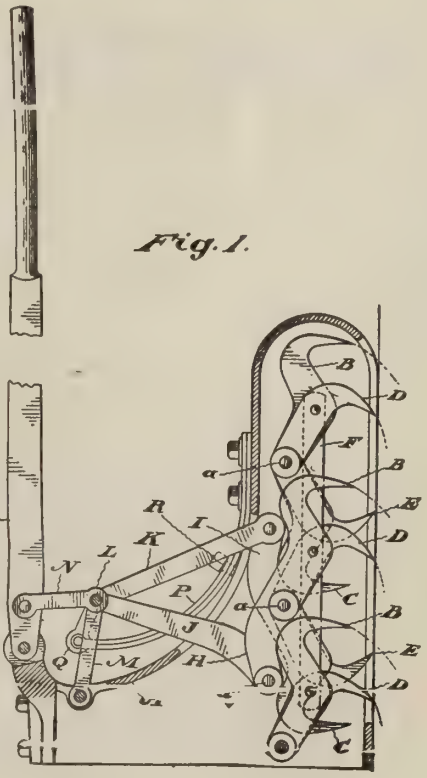


Fig. 1.

We want to prove to you the advantage of this set works in your mill and we are prepared to demonstrate its efficiency and superiority. Full information sent on application. Ask for our booklet on set works.

P. Payette & Co. Engineers & Machinists **Penetanguishene, Ont.**

FOR QUICK SHIPMENT

We offer the following stock, subject to prior sale—All Dry Stock:

A few cars left of:

5/4 x 6/8/10 No. 1 and 2, Barn
6/4 x 6/8/10 No. 1 and 2, Barn
200M 1", 1½" and 2" x 12—12/16 Spruce
100M 3 x 10—10/16 Spruce
1" x 4", 5" and 6" No. 1 and 2, Barn
1½" x 4", 6" 8" x 10" No. 2, Barn and Better

From Small Logs

1", 1¼ and 2 x 4,—10/16' Spruce, rough or dressed
" " 2 x 5, " " "
" " 2 x 6, " " "
" " 2 x 7, " " "
" " 2 x 8, " " "

1", 1¼ and 2 x 10,—10 16' Spruce, rough or dressed
" " 2 x 12, " " "

A choice lot of 1" Ash and winter sawn 1" Basswood; also Birch Flooring in all grades and thicknesses.

1 x 4/up, 6/11' Mill Run Hemlock, Mill Culls out.
1 x 4/5", 12/16' " " " " " "
1 x 4/6", 12/16' " " " " " "
2 x 4/up, 12/16' " " " " " "

2 x 6, 7, 9 & 11", 12/16' Mill Run Hemlock, Mill Culls Out
3 x 8, 10 & 12", 12/16' " " " " "
Also Log Run Hemlock, Dead Culls out.
Scant 2 x 6, 8 and 10", 6/16'

Send us your inquiries. We can supply you all your wants in Pine.

DRESSED LUMBER OUR SPECIALTY

Write, wire or 'phone us for prices before placing your orders.

W. C. Edwards & Co., Limited

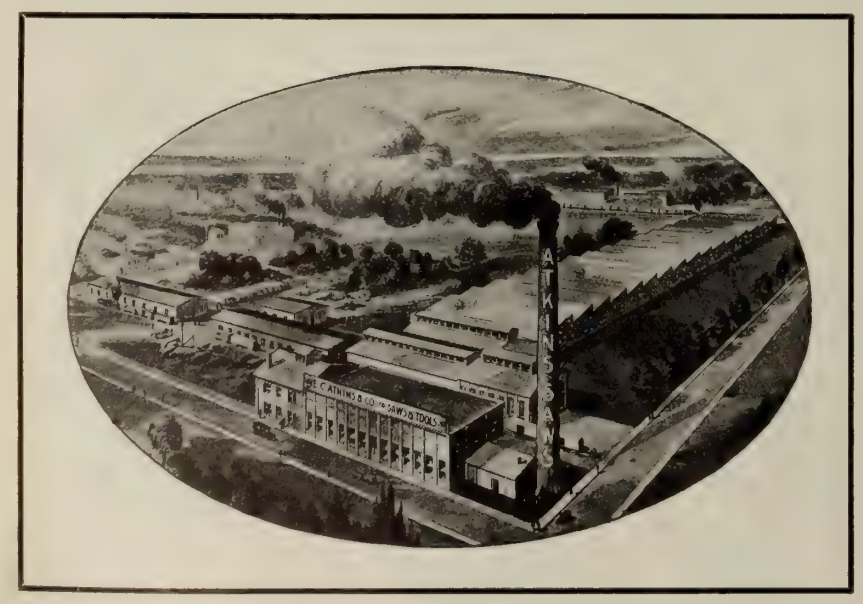
Ottawa, Ont.

Mills at Ottawa and Rockland **Planing Mills and Factories at Ottawa**

"EVERYTHING IN LUMBER"

ATKINS STERLING SAWS

Made in Canada



Band,

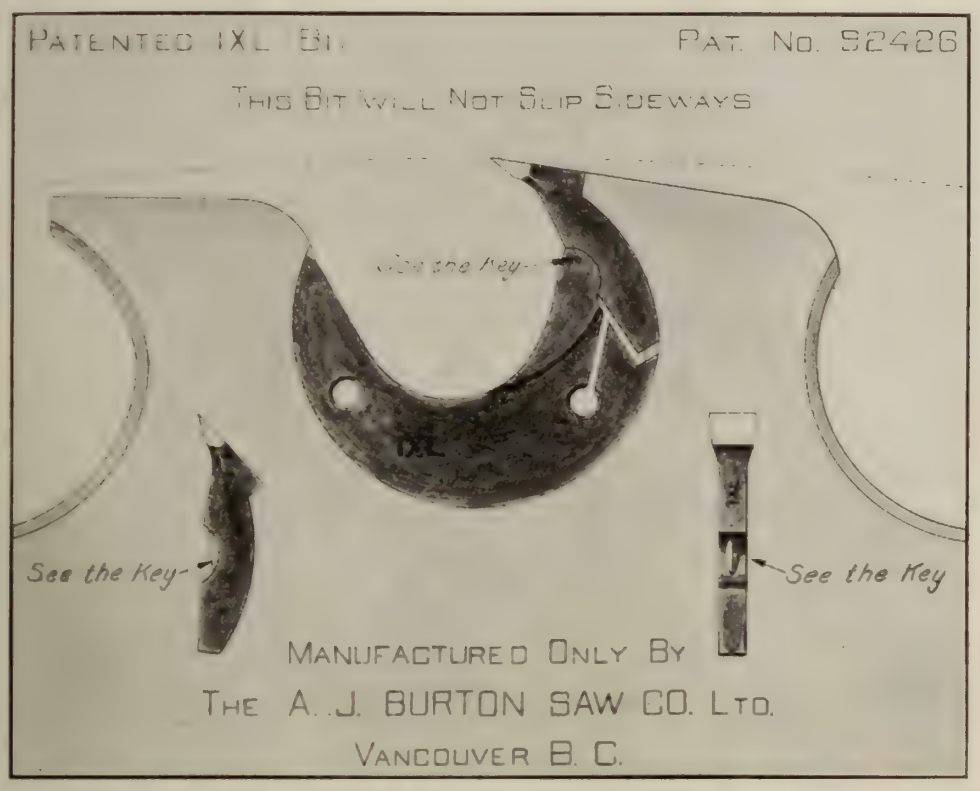
Circular,

Cross Cut

A Perfect Saw for Every Purpose

E. C. ATKINS & CO., Makers of STERLING SAWS Factory, HAMILTON, ONT.

Vancouver Branch, 109 Powell Street



Our Inserted Saws are Fitted with our Patent I.X.L. Bits and Shanks, warranted not to slip sideways, and to cut free and easy, and have no equal in hardwood or any other timber.

Saws Band, Gang, Solid and Inserted Tooth Circulars, Bits and Shanks

Carried in Stock at our Ottawa Branch. Special Attention given to all Saw Repair Work.

The A. J. Burton Saw Co., Ltd.

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VANCOUVER, B. C.
BOX 848
Phone 1748

EASTERN OFFICE, SALES-ROOMS AND REPAIR WORKS
374 Sparks St., OTTAWA, ONT.
Phone 7458

GARLOCK PACKINGS

Garlock Regular Rings

For all general purposes outside of high pressure work. This Packing is a special grade thoroughly lubricated with the celebrated "Garlock" compound, and is the perfected result of over thirty years experience in manufacturing fibrous Packings.

Garlock Square Duck Packing

Made of good quality Cotton Duck and friction for cold water.

Garlock High Pressure Gaskets

Absolutely heat proof, will not vulcanize or blow out under any steam pressure, being made of long fibre Asbestos Brass Wire Insertion.

Garlock Red Sheet Packing

Made of high grade Rubber compounded in such a way as to give it great strength and reliability.

This Packing has established wide reputation on its own merits.

Garlock Cloth Insertion Sheet

Used on cold and warm water pipes. Is unexcelled in pliability, smoothness of finish and strength of Cloth Insertion.

Garlock Rubber Valves

Specially made to meet specific conditions—absolutely unaffected by oils.

Before placing your next order for supplies get our prices on Leather, Rubber and Canvas Belts, Hose, Brass Valves, Babbitt Metals, Saw Blades, Files, Emery Wheels, etc. A full stock carried at our Western Branch, 117 Market Street East, Winnipeg. Write for catalogue.

THE GARLOCK PACKING CO.

Head Office and Factory: HAMILTON, ONT.

MONTREAL **TORONTO** **WINNIPEG**

MARITIME PROVINCES

Maritime Lumber Co.
Limited

Head Office: Saint John, N. B.
Branch Office: 180 St. James St. Montreal, P. Q

OFFER FOR IMMEDIATE SHIPMENT THE FOLLOWING WHITE PINE

500,000 ft. 1 x 6 to 1 x 12 White Pine
1sts, 2nds and 3rds

500,000 ft. 1½ x 7 to 1½ x 12 "
1sts, 2nds and 3rds

500,000 ft. 2 x 7 to 2 x 12 "
1sts, 2nds and 3rds

500,000 ft. 3 x 7 to 3 x 12 "
1sts, 2nds and 3rds

300,000 ft. 3 x 4, 5 and 6 "
1sts, 2nds and 3rds

The above Pine is last year's cut, 1st, 2nd and 3rd Quality

Donald Fraser & Sons, Limited
CABANO, QUEBEC

MANUFACTURERS OF

Long Lumber

Rough and Finished

Shingles, Clapboard,
etc.

To Reach More Lumber Buyers

Canadian lumber manufacturers and wholesalers should advertise regularly and prominently in the

Canada Lumberman & Wood Worker

This paper reaches all the principal buyers of Canadian lumber at home and in Great Britain, United States, Europe, South America.

Rates on application to the head office.

220 King Street West
TORONTO - ONTARIO

We Offer—Several Cars
"CLEAR WHITE" CEDAR SHINGLES
At Special Price For Shipment to
POINTS NORTH AND WEST OF TORONTO

Dalhousie Lumber Co., Limited
Dalhousie, New Brunswick
Agents for Ontario R. Laidlaw Lumber Co., Limited
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Selling Mill Stock
If you desire to get beyond the retail dealer and reach the builder and the architect it will pay you to advertise in the

Contract Record
and **Engineering Review**

the only weekly paper in Canada for builders, architects, etc.

Send for sample copies and rates to the publishers

Hugh C. MacLean, Limited
Toronto, Ontario

Bathurst Lumber Co., Ltd.

Bathurst, N. B.

Two modern saw mills equipped with the latest improved machinery enable us to carry always in stock a large assortment of Dry White Pine and Spruce.

Located on Bathurst Harbour for Water Shipment and on the Main Line Intercolonial Railway for Rail Shipment, we can

Reach Any Market in the World

Possessing the best standing timber in the Maritime Provinces we are able at all times to supply lumber of uniform high quality and strictly up to grade.

Stock Now Ready for Shipment

Clear and No. 1 Spruce

100M 1x4″ and up, fine stock, good widths
50M 1¼x4″ and up, fine stock, good widths
200M Scant 2x4″ and up, fine stock, good "

Merchantable Spruce

100M 1¼x6x10 ft. and up
200M 1¼x8x10 ft. and up
200M 1¼x9x10 ft. and up
50M 1¼x10x10 ft. and up
100M 1¼x5 and 7x10 ft. and up
1000M Scant 2x6x12 ft. and up
200M 2x8x12 ft. and up
300M 3x6x10 ft. and up
200M 3x8x10 ft. and up
100M 3x10x10 ft. and up

No. 3 Barn and Better Pine

5 Cars 1x6″, 10 ft. and up, nice lumber
5 Cars 1x8″x10 ft. and up, nice lumber
5 Cars 1x10x10 ft. and up, nice lumber
2 Cars 1x12x10 ft. and up, nice lumber
10 Cars 1x7″ and up, 10 ft. and up, nice lumber

Log Run Birch

150M 1¼x4″ and up, 6 ft. and up
75M 1½x4″ and up, 6 ft. and up
25M 2x4″ and up

Cedar Lath

3 Cars 1⅜x⅜x4 ft.

Write for our monthly stock list giving full particulars of our lumber ready for shipment

E. H. Heaps & Co., Ltd.

Lumber, Shingles, Doors, Mouldings, Finish, etc.

Specialties: AAI BRAND HIGH GRADE SHINGLES
LONG FIR TIMBER

Mills at
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Head Office: 445 Hastings Street West
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FERNIE, B. C.

MANUFACTURERS OF AND DEALERS IN

Rough and Dressed Lumber

Tamarac, Spruce and Cedar

Fence Posts, Telephone and Telegraph Poles

Moulding in Stock or Made to Order

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ASH BASSWOOD CHESTNUT CHERRY COTTONWOOD

BUCKEYE CYPRESS MAHOGANY

Need any Oak?
Need any Poplar?
Need any Chestnut?

OUR SPECIALTY—The supplying of high class lumber—at right prices.

Shipment direct from mill—good grades.

YOU CAN'T AFFORD to manufacture Oak Flooring when you can buy it—ready to lay—at our prices.

CAN MAKE PROMPT DELIVERIES

THE F. T. PEITCH CO.,

CLEVELAND, OHIO

GUM POPLAR SYCAMORE

PLAIN AND QUARTERED OAK YELLOW PINE

Pine

Selects
Shops
Commons
and
Mouldings

THE HALL MARK OF QUALITY

Larch

Timbers
Yard Stock
Clears
and
Mouldings

The East Kootenay Lumber Co. Limited

Head Office: JAFFRAY, B.C.
Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

For low prices and prompt shipment of

Yellow Pine Timbers
Short Leaf Finish
Chestnut --- Oak --- Ash
Cypress
New Brunswick Shingles

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Fred S. Morse Lumber Co.

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HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

Phone Main 6386

Mills: Knoxville, Tenn.
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Incorporated

Head Office: BOSTON, MASS.

Manufacturers Southern Hardwood Lumber

Canadian Branch

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Robert Vestal, Manager

ANYTHING IN OAK LUMBER

We have the following stock we are anxious to move, let us quote you on it:

250,000 ft. 1 in. No. 2 Com. and Btr. Basswood
1,000,000 ft. 1 in. No. 2 " " Hard Maple
40,000 ft. 1 x 4 in. 1 face and 2 faces Clear Birch Strips
50,000 ft. 2 in. 1sts and 2nds Unselected Birch
400,000 ft. 1 in. No. 1 Com. Unselected Birch
50,000 ft. 1 in. No. 2 Com. Unselected Birch
100,000 ft. 1 in., 10 and 12 ft. Moulding Birch

Other Northern Hardwoods in complete assortments

BRADLEY TIMBER & RAILWAY SUPPLY CO.
Second Floor Palladio Bldg., DULUTH, MINN.

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QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

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Canadian Rep. - W. J. Anderson, 288 South St., London, Ont.

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buy your Hardwoods direct from

THE MANUFACTURER

Can Furnish Anything In---

Kentucky's Best

Quartered White Oak
Quartered Red Oak
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Walnut
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Mixed cars furnished at same prices as straight cars.

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Pearl City Veneer Company

Manufacturers of

Veneers and Panels

IN ALL NATIVE WOODS

We have for quick shipment Three Ply End Panels, Drawer Bottoms, and Glass-backs

Our shipping facilities for Canadian Trade unequalled.
Enquiries solicited and quotations promptly given.

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Yellow Poplar Lumber Co.

Manufacturers of Band Sawed
Poplar, Quartered Oak, Plain Oak, Chestnut, Basswood

SPECIALTY:
Quarter Sawed White Oak

COAL GROVE, Ohio, U.S.A.

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United States Manufacturers and Wholesalers seeking Canadian Business

J. M. Clifford & Co.

Manufacturers and Dealers in
all Kinds of

Hardwood Lumber

Poplar Basswood Cypress Elm Oak Ash Maple

We have a full stock of the above thoroughly air dried. Complete line and high grades. Prompt shipments on mixed cars.

Best Quality **Uniform Grades** **Low Prices**

GET OUR QUOTATIONS BEFORE BUYING

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Hardwoods for Quick Sale

We want to move the following stock quickly:

4/4 and 5/4 No. 2 Common and Better Basswood; 4/4 No. 2 Common and Better Brown Ash; 4/4 and 5/4 No. 2 Common and Better Birch, strictly unselected for color; 4/4 and 5/4 No. 1 and 2 Common Flooring Maple; and 4/4, 5/4, 6/4, 8/4, 10/4, 12/4 and 16/4 Firsts and Seconds Maple. All stock dry and in shipping condition, and either car or cargo shipments.

W. H. White Company **Boyne City Lumber Co.**
Wholesale Yards at Buffalo, N.Y.
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Manufacturers of Foreign and Domestic Hardwood Lumber and Veneers.

Ohio Veneer Company

—— Importers of ——

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Office and Mills: 2624 to 2634 Colerain Ave., CINCINNATI, OHIO.

R. A. Wells Lumber Co.

Wholesalers and Exporters of

Hardwood Lumber

of All Kinds

Special attention to Canadian trade. Prompt Shipments

Our speciality is 1" to 2" Gumwood, 1" to 2" Oak, both plain and quartered stock, 1" to 2" Ash and 1" Cottonwood.

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SALES OFFICE, CINCINNATI

Band Mills: Valleyview, Ky., Glendora, Miss.

Manufacturers

OAK GUM
POPLAR CHESTNUT
ASH CYPRESS

If You Need a Lumber Salesman

a classified advertisement in the **Canada Lumberman and Woodworker** will find one for you.

If You are a Capable Man

no matter how small or how big your present position may be, an advertisement in **this paper** will put you in touch with every existing possibility.

The rates are most reasonable, write us.

Canada Lumber and Woodworker - Toronto

Duhlmeier Brothers Manufacturers Hardwood Lumber

MILLS { Kentucky, Tennessee, Mississippi.

Main Office and Yards { **CINCINNATI, OHIO**

KENTUCKY { Plain Oak Red and White / Nice Soft Texture **MISSISSIPPI-Red Gum TENNESSEE-Yellow Poplar**

Nice Wide Stock—Good Lengths

OUR LUMBER IS MANUFACTURED RIGHT AND GRADED RIGHT. YOUR ENQUIRIES SOLICITED.

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United States Manufacturers and Wholesalers seeking Canadian Business

Long-Knight Lumber Co.

Manufacturers Indiana and Southern

Hardwoods

OAK, ASH, CYPRESS Our Specialties

Address all inquiries to the Main Office at—

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Theo. Fathauer W. M. Hopkins

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WHOLESALE HARDWOOD LUMBER

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Plain and Quartered White Oak. **Figured and Plain Red Gum**

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We have the following high grade hardwood for prompt shipment :

Our Specialty — Anything in Hickory Lumber

1 car 1¼" No. 1 Common Hickory.
1 car 1½" No. 2 Common Hickory.
1 car 1" No. 1 Common Poplar.
1 car 3" No. 1 ommon and Better Plain Oak.
1 car 1" x 3" Clear Quartered White Oak Strips.
1 car 1" x 3½" Clear Quartered White Oak Strips.
1 car 1" x 4" and 4½" Clear Quartered White Oak Strips.
1 car 1¼" x 4" to 5¼" Clear Quartered White Oak Stripes.
1 car 1½" 1st and 2nds Quartered White Oak.
2 cars 1" No. 2 Common Quartered White Oak.
1 car ¾" No. 1 Common Quartered White Oak.

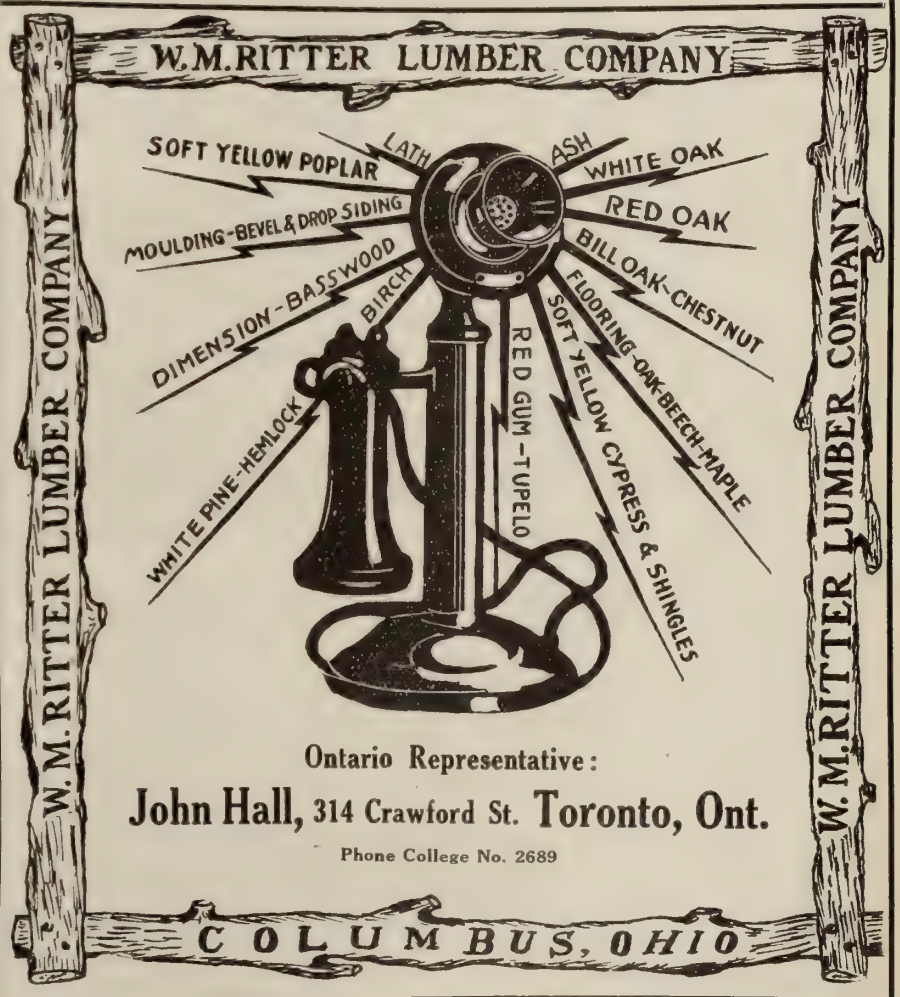
Indiana Quartered Oak Ash Basswood Poplar

S. P. Coppock & Sons Lumber Co.

Main Office, FORT WAYNE, IND.

Yards: Orleans, Ind., Fort Wayne, Ind., Paoli, Ind.

Canadian Representative: Mr. S. D. Smith.



Ontario Representative:

John Hall, 314 Crawford St. Toronto, Ont.

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Our Specialties

Michigan Hard Maple, Birch and Basswood

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DRY BEECH

We want to move 200,000 feet 5/4—No. 1 and better dry Beech. A Snap at the Price.

Also quick deliveries on NORTHERN HARDWOODS, YELLOW PINE, OAK DIMENSION, FIR, HICKORY, OAK, CAR STOCK and PILING.

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Manufacturers and Wholesalers

CHICAGO, ILL., U.S.A.

Self Feed Rip Saw

Self Feed Gang Saw

The Stuart Machinery Co., Ltd.
WINNIPEG, MAN.
Agents for Saskatchewan, Alberta and Manitoba

Write for catalogue. It illustrates many special Box Factory and Saw Mill machines

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.

Cross - Cuts for Good Hard Work

The "SAW KING" Cross-Cut Saws have won exceptional favor throughout the trade by the good work they do, the hard wear they stand and their general reliability. These saws have stood the test of Camp and Mill and have proved their worth—their high quality steel and perfect tempering and grinding sets them far above the average and places them in a class by themselves.

THE "SAW KING" CROSS-CUT

The "Saw King" Cross-Cut Saws have merits possessed by no other saws. By looking at the above cut you will see that the chip spaces are wider and deeper in the centre than they are in any other part of the saw, thereby giving a capacity for the accommodation of the largest accumulation of sawdust, which is always in the centre of the saw. The chip spaces decrease in size from this point of the saw, as also does the quantity of sawdust. All users of saws know that the teeth at the centre wear much faster than they do at the ends, as the teeth are longest at the centre, it gives greater wearing capacity to the saw, and as the teeth are smaller at the ends of the saw and leaves the saw blades wider between the teeth and at the back. Where the blade is narrowest, it gives more strength and stiffness at the point where it is most required. The saws are tempered by our new improved process, giving them a keener cutting edge than any other Cross-Cut Saw made. They are thoroughly warranted. Any defective saws will be replaced by the seller.

Prompt Delivery a Specialty. **Send for Particulars and Prices.**

R. H. Smith Company Limited St. Catharines, Ontario

Patent Variety Lathe

WHY WASTE TIME AND MONEY

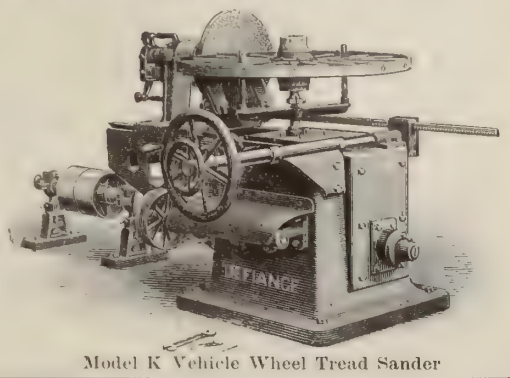
TRYING TO PRODUCE THE BEST WITH CHEAP TOOLS?

"DEFIANCE" WOOD-WORKING MACHINES

Have never yet failed to come up to all the claims we have ever made for them. In fact, all our customers have found them to contain features which have proven them even more than we claim.

ASK THE MANUFACTURER

who has studied the production of high grade products and knows how to select a piece of machinery which will serve his purpose best and all the time, not half the time. He will pick a DEFIANCE machine every time. It's a natural tendency. If you haven't our catalog and prices, write us TO-DAY for them.

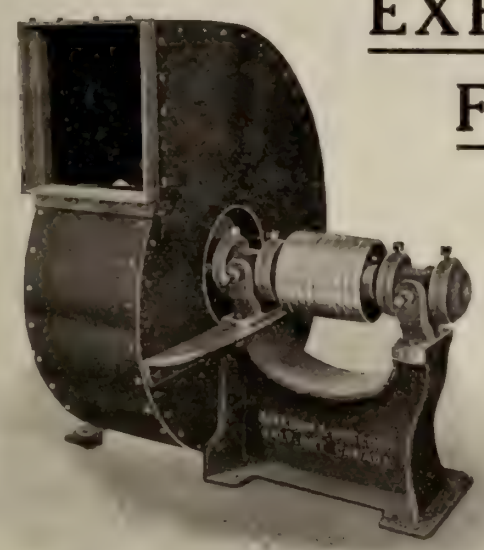


Model K Vehicle Wheel Tread Sander

THE DEFIANCE MACHINE WORKS, 426 Perry St., Defiance, Ohio, U.S.A.

Representatives:—A. R. Williams Machinery Co., Toronto, (Ontario) St. John, (New Brunswick), Winnipeg, (Manitoba), Vancouver, (British Columbia), Reid-Newfoundland Co., St. John, (Newfoundland), Williams & Wilson, Montreal, (Quebec), W. L. Blake Co., Portland, Me., (Maine, New Hampshire and Vermont).

SHELDON SHAVING EXHAUST FANS



Specify our Blower and Exhaust Fans and you will not be disappointed. Saving in power and speed of 25% to 40%.

Send for Catalogue

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

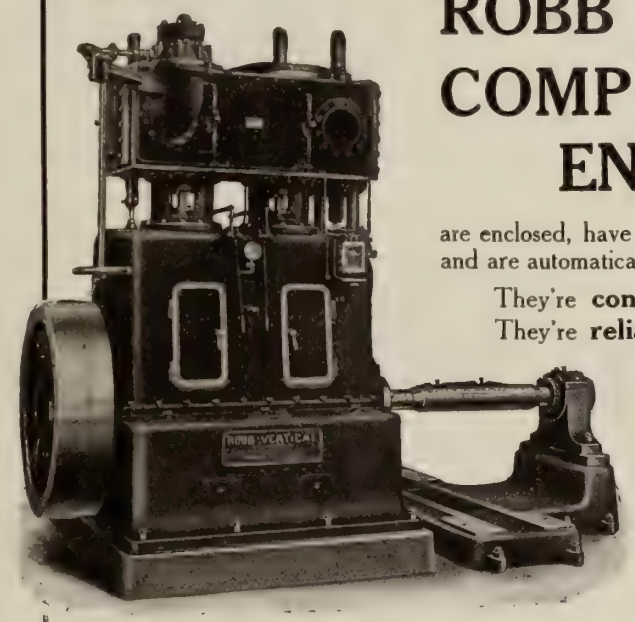
Agents

Ross & Greig, 412 St. James St. Montreal — Robert Hamilton & Co., Bank of Ottawa Bldg. Vancouver

Gorman, Clancey & Grindley, Calgary and Edmonton.

For Continuous Service Without Attention

ROBB COMPOUND ENGINES



are enclosed, have positive valve gear and are automatically lubricated.

They're **convenient.**
They're **reliable.**

Send for Bulletin No. 201

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District Offices:

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Traders Bank Building, Toronto	-	-	-	Wm. McKay, Mg'r.
Union Bank Building, Winnipeg	-	-	-	W. F. Porter, Mg'r.
Grain Exchange Building, Calgary	-	-	-	J. F. Porter, Mg'r.

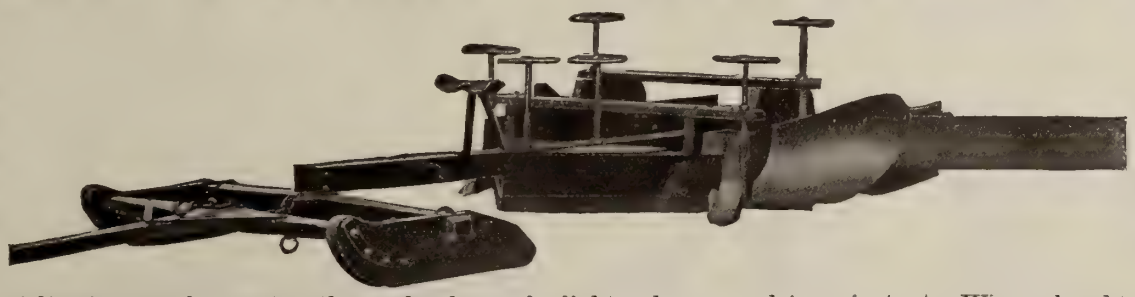
Sole Canadian Agents for 39-9

C. A. PARSONS & COMPANY, NEWCASTLE-ON-TYNE

Turbines, Turbo-Electric Generators, Turbo-Pumps and Compressors

"Brazel Patent" SNOW PLOWS

Known in every Camp from the Atlantic to the Pacific as the most satisfactory Snow Plow made.



Combination Model, Lumberman's Snow Plow, can be used either with or without Rut Cutter.

One man to operate. Adjusting wheels close together make change for light or heavy work in an instant. Wings placed to throw snow 9' wider than sleigh track or narrower if desired. Height of mouldboards prevent snow falling back on track. **Brazel Plows** cut 6" wider than logging sleighs, roll snow oustide track and away from roadway. Cut off knolls, fill up holes and leave a perfectly level road. Cut off dirt and manure from an ice road leaving a clean roadbed. Roll up and push entirely away from the road, 12" of loose snow each time the plow passes over.

THE BATEMAN-WILKINSON CO., LIMITED Successors to THE WILKINSON PLOUGH CO., LIMITED, **TORONTO, CANADA**

Catalogue and prices on application

ESTABLISHED 1870

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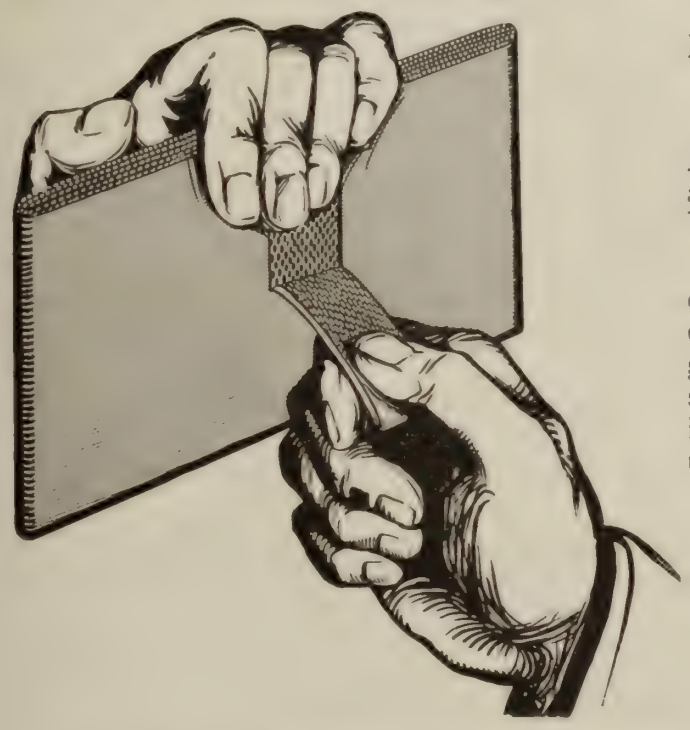

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Mr. T. H. E. Retailer,
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North America.

Dear Sir:—THE SAW-MILL OWNERS SALES COMPANY is a collection of lumber manufacturers of the Provinces of Quebec and New Brunswick, representing an annual output of over Forty Million Feet B.M. of Spruce lumber (apart from the Lath and Shingles), united under one Board of Management, having supervision over the sawing of the lumber and manufacturing in general of all the Mills interested, with the sole aim of creating uniform grading and uniform manufacturing. Therefore, avoiding the great trouble experienced by wholesalers in general, which is to supply their customers with stock of all kinds of manufacture and grade, caused by the individual management of each mill, where the wholesaler buys his supplies. A state of affairs entirely beyond the control of the wholesaler. Our organization in this instance naturally gives the Retailer better satisfaction. All our individual shipments are samples of the whole output.

Then again, the millmen have organized an experienced staff of salesmen, under the supervision of a sales manager, condensing in each and every salesman these three great points, so important for the continuance of the retailer's patronage—Quality, Quantity and Responsibility. Three points known to very few of the trade.

At present our stock is very low, but we have Five Million Feet in our different yards. Some of this ready to ship, notably some merchantable spruce: 2 x 4, 2 x 5, 2 x 6, 2 x 7, 2 x 8, 2 x 9, 1 x 4, and up, also 1 x 4 Mill Cull Pine.

We remain, Dear Mr. Retailer,

Yours respectfully,

THE SAW-MILL OWNERS SALES COMPANY.

A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 32 Toronto, November 15, 1912 No. 22

What is the Situation in Hemlock?

In view of the high prices at present prevailing for hemlock, it would be interesting to ascertain how much spruce and other lumber is being substituted for hemlock. In an interview with a well-known and old established wholesale lumber dealer in Toronto recently, a representative of the Canada Lumberman had a case mentioned to him in which a contractor, who last year had bought a large quantity of hemlock No. 2, was this year substituting spruce for a similar job. The chief reasons given by the contractor for this substitution were: 1st, waste in hemlock No. 2, which does not occur in spruce; 2nd, a thinner size in spruce than in hemlock could be used and yet the same strength be obtained. This contractor had figured out that for the reasons given above, he was considerably in pocket in spite of the higher price which he had to pay for good spruce. Although this is an isolated instance, it tends to show what may occur should the price of hemlock make a still further advance, and it would be well for manufacturers of hemlock to give this close consideration. The substitution of spruce and other lumber for hemlock has taken a long time to develop, and it may be taken for granted that a similar length of time would obtain before consumers would revert to hemlock, conditions being equal. At the present time when hemlock manufacturers are refusing orders and have practically no stock to dispose of, the matter is not one to give them much immediate worry, but should conditions alter, owing to a poorer demand or for other causes, the question might be one of considerable anxiety.

The wholesale dealer above referred to mentioned in course of conversation that he was finding the manufacturers were competing with the wholesalers by selling direct to the consumer. He instanced one or two cases in his own business where consumers with whom he had tried to do business, had told him that the manufacturer had offered him the same lumber at a considerably lower price. This price, the dealer stated, was the same as that at which he, the dealer, could buy from the manufacturer.

This dealer had also just received a quotation stating that the order would be filled in three lots at thirty, sixty and ninety days. At the price quoted, the dealer said he could buy from a local yard and have the lumber delivered in two or three days. If this state of affairs is general, no reliability can be placed on any quoted prices and requests for quotations on insignificant lots are likely to be sent out broadcast to manufacturers and wholesalers alike. These are simply samples of a class of story which one hears daily in lumber offices and they reflect no credit upon those in the trade who conduct their affairs in such a manner as to give rise to them.

Wood Consumption and Production

The United States Forest Service has published an extensive bulletin upon the wood-using industries of Michigan, which has been prepared by H. Maxwell. The investigation was undertaken by the Forest Service in co-operation with the State of Michigan. The statistics were compiled from data collected during 1911 covering a period of one year from January 1 to December 31, 1910. The saw-mills in the State of Michigan are reported to have cut during the year 1910, 1,681,081 ft. of lumber and the factories of the State required 1,282,561,200 ft. for the commodities which they produced. In addition to this, the factories bought nearly half a billion feet outside of Michigan. The reason for the excess of manufacture of lumber above the quantity used by factories is that a large part of the output is demanded for other purposes being used both in the State and out of it as rough lumber for framing, bridges, fences etc. Another reason is that much of the wood required by the factories does not grow in Michigan, or not in sufficient quantity.

Michigan mills cut during 1910, 48,000,000 feet of white pine, 60,000,000 feet of beech, 210,000,000 feet of sugar maple and 460,000,000 feet of hemlock which never found their way to factories within the State.

The yearly output of the saw-mills of Michigan is declining. It was 200,000,000 feet less in 1910 than in 1909. This decline may be expected to continue. Some species, once abundant in the State are now scarce, notably, white pine and Norway pine. With the probable exception of birch and popple—both of small comparative economic value—it is doubtful if there is a single timber tree in Michigan which is not becoming scarcer. Michigan factories are now sending to Arkansas for oak, Tenneesee for yellow poplar, Pennsylvania and West Virginia for cherry, Louisiana for cypress, California for redwood, Oregan and Washington for fir and cedar, Mississippi, North Carolina, Canada and Idaho for pine and to nearly all foreign countries for costly cabinet woods.

There will be timber in Michigan for a long time, but the bulk of what was once there is now a thing of the past. Wide-awake lumbermen understand that in fifteen years it will be about over. Up to the present time practically no planting has been done. The Michigan forest fire problem is a hard one to solve, and until it is solved, re-forestation is impossible.

Michigan manufacturers reported the use of 99 kinds of wood in that state. Of these, white pine was used to the extent of 210,136,308 feet, being 16.38 per cent. of the total wood consumption. The average cost per thousand feet was $21.57. The total cost f.o.b factory was $4,532,296. The quantity of this grown in Michigan was 34.5 per cent. and the quantity used was 151,758,450 ft., being 11.83 per cent. of the total wood consumption. The average cost per thousand feet was $13.31 and the total cost F.O.B. factory $2,019,305. Of this, 98.91 per cent. was grown in Michigan and 1.11 per cent. outside of Michigan. White oak was used to the extent of 46,230,272 ft., being 3.60 per cent. of the total wood consumption. The average cost per thousand feet was $47.63 and the total cost F.O.B. factory was $2,202,171. Of this quantity 11.1 per cent. was grown in Michigan and 88.99 per cent. outside of Michigan. Red oak was used to the extent of 29,278,234 ft., being 2.28 per cent. of the total wood consumption. The average cost per thousand feet

was $40.25 and the total cost F.O.B. factory was $1,178,581. Of this, 90.55 per cent. was grown in Michigan and 9.5 per cent. outside of Michigan. Longleaf pine was used to the extent of 24,901,539 ft., being 2.72 per cent. of the total wood consumption. The average cost was $25.29, and the total cost f.o.b. factory $882,576. All of this was grown outside of the state of Michigan. Shortleaf pine was used to the extent of 22,382,626 ft., being 1.74 per cent. of the total wood consumption. The average cost was $27.20 per thousand and the total cost F.O.B. factory $608,742. All of this was grown outside of the state of Michigan.

The wood used by the factories of the state of Michigan for manufacturing purposes cost $29,650,823. Sugar maple, white pine and hemlock, taken together, supplied more than half of all the wood consumed by the factories. Sugar maple heads the list, making more than one-quarter of all. It was consumed to the extent of 333,724,944 ft., being exactly 26.02 per cent. of the total wood consumption. The average cost was $17.53 per thousand feet and the total cost F.O.B. factory $5,849,472. Of this 91.22 per cent. was grown in the state of Michigan and 8.88 per cent. outside of the state of Michigan.

Referring to white pine the report says: "The Northern two-thirds of Michigan were once covered with white pine, but very little remains now. In a few localities the remnants of the original stand are being cut; and here and there straggling trees which escaped when the forests were felled, are coming to the mills, loaded on log cars with hemlock, Norway pine, and the hardwoods. Logging operations began in Michigan on a large scale soon after the civil war, and white pine was cut in enormous quantities. It was not unusual to sell good lumber at the mills below the cost of mediocre stumpage now. The entire State, north of the southern tiers of counties where little pine grew, was cut over. To-day it is difficult to find plots of even a few acres of the original pine; but over the whole region, with scarcely any exception, are to be seen the stumps in all stages of decay. Probably a scene like it can be found nowhere else; a forest so vast removed in so short a time that the stumps of the first cuttings have not had time to disappear through decay."

After a lengthy consideration of the situation, the report says:

"Reforestation is the remedy. Much of the region will never grow farm crops. It once produced the finest pine forest in the world and though the soil is plainly deteriorated, it would still grow pine, if given the chance. The young trees would fix the drifting sand and slowly the forest would come back. It is much easier however, to discuss the matter as a theory than to tell how to do it in practice. The regions needing re-forestation are so extensive, conditions so adverse, and the cost of planting large tracts so great, that practical work commensurate with the needs can be got under way but slowly. On the other hand, the recollection of the high place Michigan once held as a producer of pine is a strong and constant encouragement to the people of the State to get the sand land back into pine again.

It is admitted by all who have given the matter serious thought, that the hardest part of the whole proposition is the control of fires.

The aggregate cost of the wood consumed by the thirty-three chief wood-using industries in Michigan during 1910 was $29,650,823 and the average cost was $23.12 per M. feet, the following figures show the average cost of a thousand feet in several other states: Kentucky $23.07, Wisconsin $21.81, Massachusetts $21.29, Maryland $20.67, Oregon $15.87, North Carolina $14.13, Louisiana $11.63. The average price of the wood grown in the State of Michigan was $13.00 per M feet less than for wood brought in from outside. The most extensive consumer of wood products in the State during 1910 was the planing mill business which utilized 432,526,195 feet, or 33.72 per cent. of the total consumption. For this they paid on an average $18.94 per M. The automobile industry paid the highest average price for its wood, viz., $57.62 per M. The cheapest class of wood was used by the excelsior manufacturers and cost them only $10.42 per thousand feet. The planing mill industry is the largest listed in the State of Michigan, both as to quantity and value of the material used.

The report deals in detail with the quantities and classes of wood consumed by each of the important wood-using industries of the State and contains a great quantity of most interesting and valuable information. Excellent statistical tables are also included together with a list of the wood-using industries of the State with the classes of wood required and a directory of Michigan wood-using firms. The bulletin is one of the most thorough and valuable that the forest service have every brought out.

Inspection and Grading of Lumber

A letter which was recently received from a large firm of paper manufacturers in New York city is typical of many of the enquiries upon this subject. In the course of the letter the writer says: "It is of course very desirable that there should be some definite and known rules for the grading of hardwood lumber, and as you no doubt know, the National Hardwood Lumber Association of the United States has compiled and had printed complete and definite rules for grading in the United States market. If there are any definite rules for grading of hardwood lumber in the domestic market of Quebec and Ontario, I would be glad if you would advise me where a copy of such rules may be obtained."

The Canada Lumberman would be pleased to receive letters or articles upon this subject, so that the situation may be brought home forcibly to the whole trade.

The Canada Lumberman receives many letters from its readers regarding the question of inspection and grading of lumber. The number of letters received has increased considerably of late, showing that the interest in this important subject is becoming more wide-spread. Frequent enquiries are received from the United States and when information is given in reply, to the effect that there is very little in Canada in the form of grading rules, officially adopted by representative bodies of lumber manufacturers or dealers, the information is received with surprise.

This is a subject in which practically every lumberman whether he be a manufacturer, wholesaler or retailer is vitally interested. It is also a question which will undoubtedly continue to create a great deal of trouble to the trade until it has been settled by the adoption of grading rules for the various classes of lumber.

Two Scarcities Which Affect the Lumber Trade

In an article dealing with the scarcity of lumber tonnage on the Great Lakes and the scarcity of skilled labor, which is at present hindering to a great extent operations in the woods, the American Lumberman recently published the following interesting reflections:

"Complaint is made by wholesalers, from Duluth to the Tonawandas, that there is a scarcity of vessel tonnage for the carrying of lumber from the head of the lakes, and from mill points down the chain of Great Lakes to the different destinations. At first blush this seems like an unaccountable condition, since it might be supposed that since the decline of white and Norway pine production craft to transport the remnant of lumber produced in the waterfront parts of Michigan, Wisconsin and Minnesota would be plentiful. Yet there is a reason for the comparative scarcity of lake boats adapted to the shipment of lumber.

"In the old white pine days, when several billion feet of mill product were annually piled at numerous ports on Lakes Huron, Michigan and Superior, a lumber fleet grew up, composed of schoon-

ers and steam barges, each carrying 250,000 to 1,000,000 feet, that throughout the season of navigation did nothing but transport lumber. In fact, they were built for that purpose and were not adapted to the grain and merchandise trade. When lumber manufacture declined, the declension becoming rapid in the decade between 1895 and 1905, the old lumber schooners and steam barges generally fell into disuse, while few were built. As the lumber trade declined the ore business increased, and steamships were built at Lake Erie ports in rapid succession for the transportation of iron ore. With the passing of the greater share of the lake lumber trade comparatively few vessels and barges remained, and these were retained to provide transport for the remnants of pine, for a developing hemlock business, and to provide for the hardwoods produced contiguous to the lake ports. Now when demand for boats is anything extraordinary, such as usually occurs in the fall, there is not enough to provide for the exigency, and a scarcity is the result. It is now said that at the Tonawandas, at Cleveland and at other points wholesalers fear that they will be unable to get all the lumber that will be needed to stock their yards before the close of navigation.

"Another scarcity felt in northern Michigan and Wisconsin, as well as in Minnesota, is that of men to do the season's logging. There was such a scarcity last winter, and it threatens to be worse during the season now beginning. If reason for such a lack of woodsmen is sought it will be found in the passing of the old generation of skilled woodsmen, who made that employment the principal means of livelihood. Many of them were bred to their business in Maine, northern New York and in the Canadian provinces. As the lumber industry declined in the old pine states the once dependable force, that was employed in the woods during the logging and driving seasons and about the mills in the summer, scattered, some to the south, others to the intermountain and coastal west, while many abandoned lumbering entirely. Not only has the old woods army been thus dissolved and scattered, but the very art of the axeman, the skidder and the woods teamster has been lost. The mass of the operators' forces has disappeared, and to a large extent they have to depend on green hands—and they are scarce, at that. This season the cry goes up for more men, and they must be taken when found, such as they are.

"The foregoing two instances of scarcities in the lumber line show that in respect to both material and human agencies, adaptabilities and utilities grow up on the basis of demand for them. In the decline of any industry the remaining operators are handicapped by dissolving facilities and the dispersion and desuetude of skilled workmanship."

Timber Growth in Lac LaBiche Region

The Forestry Branch of the Department of the Interior has had a number of parties out during the past season continuing the examination of the unexplored districts to find out the supply of timber on Dominion lands and determine the lands which should be reserved permanently for timber purposes. These parties are generally in charge of graduates of the Forest School of the University of Toronto. The work for the season is almost completed and the parties are now returning from the field. Two of the parties have already reported.

Mr. S. H. Clark examined during the past season the district lying north of Lac LaBiche and east of the Athabaska River in Northern Alberta, which is along the route which was proposed for the Alberta Great Waterways Railway. The season was wet, and, as the district was found to be covered largely by muskeg, the examination of it was difficult. The muskegs were almost impassable and the few trails that were found are in poor condition. In spite of the condition of the trails quite a large number of people were going in to Fort McMurray to locate.

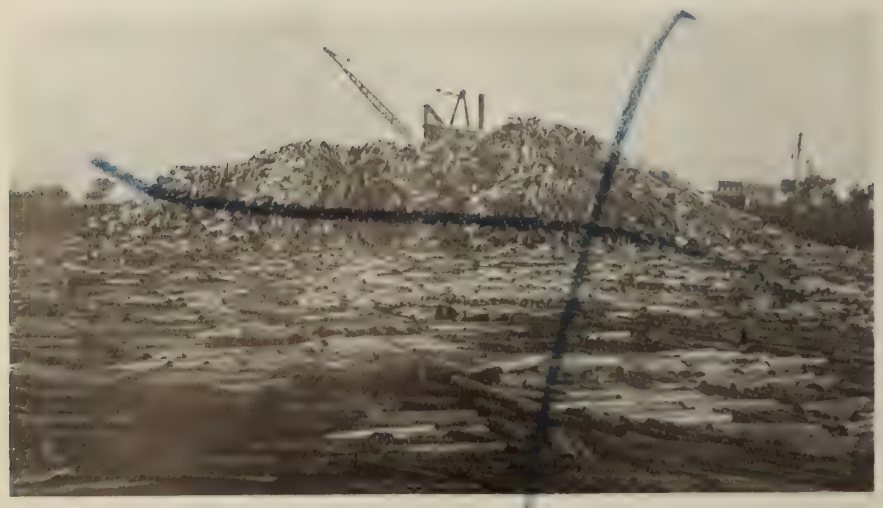
It had been reported that there was some large timber north of Lac LaBiche, but the examination brought out the fact, which has too frequently been the case, that the quantity of large timber is small and only in a few scattered areas. There is, however, a large quantity of immature spruce and jack pine which needs only protection from fire to be a valuable crop for pulpwood or lumber. The land is generally covered with muskeg, and the soil, nowhere first-class, becomes lighter and sandy towards the east, where it consists of sandy jack pine ridges with muskeg between. The undrained muskeg make the timber growth slow, but the whole district is more suited for timber growth than for agriculture.

Editorial Short Lengths for Busy Readers

There is a very good demand for lumber in practically all parts of western and central Canada. In the rural districts many of the farmers are busy on new buildings and repairs and the country lumber yards are doing a satisfactory volume of trade. In some parts it is reported that the well-to-do farmers are building granaries on their farms. This is a step that has been urged in western Canada for some years. There is still considerable activity in building operations in the cities and towns. Contractors are rushing work as much as possible before the winter sets in. Collections are still slow as the crop movement is a little later than the average but the outlook in that respect is encouraging.

The judgment given by the Supreme Court of Canada to the effect that lumber which has been planed or dressed on two sides and then passed through a roughing machine which gives one of the dressed sides or edges the appearance of being rough or undressed, shall be admitted to Canada free of duty, is a serious blow to the lumber manufacturing industry of Canada, particularly to that of British Columbia. At the present time the situation is not serious because the manufacturers of the United States are able to dispose of their stocks easily in their regular markets. When a time comes, however, such as that which prevailed until about a year ago, when home markets are depressed in the United States, large quantities of this class of lumber will unquestionably be dumped on the markets of Canada as they have in the past. It will be a pleasant thing for the consumer to secure his lumber at less than it costs to manufacture, but it is not just that the manufacturer in Canada should be made the goat of politics and of commerce in such a manner. The decision of the Supreme Court ought to be appealed to the Privy Council and an effort should also be made to have Parliament alter the wording of the tariff act so as to make its meaning unquestionable.

The report of the Census and Statistics department upon manufacturing industries in Canada during the year 1911 shows that 3499 lumber manufacturing establishments employed capital to the extent of $146,395,438. In these establishments there were 76,424 employees, whose salaries and wages amounted to $25,822,383. The value of the products of these plants was $105,506,190. The above values refer to plants turning out log products. A separate schedule is given in the statistics for plants manufacturing lumber products of which there were 859 with a total capital of $52,547,261. These plants employed 17,225 employees whose salaries and wages amounted to $9,615,046. The value of the products of these plants was $39,805,615. Some of the statistics in regard to the total production of manufactured products in Canada are of much interest. Compared with the census for the year 1900 an increase is shown of 4559 in the number of working establishments, of $798,829,009 in the value of capital, of 175,108 in the number of persons employed, of $127,274,301 in the earnings of salaries and wages and of $683,722,157 in the value of products.



Wood supply—Merriton Pulp Mill

Cutting up mill—Hawkesbury

Notable Pulp, Paper and Lumber Firm

Riordon Mills at Hawkesbury, Calumet and Merriton—Description of Methods and Equipment Used by a Company with Extensive Output

One of the most notable features of the industrial development of Canada has been the rise of the paper and pulp trades, particularly in the Province of Quebec, the magnificent water powers of which have been vital factors in this connection. Both in Quebec and in Ontario many new plants have been started, while the established companies have found it imperative to extend their facilities.

One of the oldest concerns in the Dominion is the Riordon Pulp & Paper Company, with mills in Ontario and Quebec. The business was founded about fifty years ago for the manufacture of paper, but went into pulp production. In 1910 the lumber business of G. H. Perley & Company, of Ottawa (established in 1899) was added, the name being lately altered from the Riordon Paper Company to its present title. For fifty years the management of the company has been controlled by Riordon interests.

The company are the owners of six mills, two in Ontario and four in Quebec, the former for the manufacture of pulp wood and paper. The sulphite mill at Hawkesbury, Ontario, is the largest in Canada or the Empire, and the second largest on the North American Continent, the capacity being 47,000 tons per annum. It is supplied with both steam and electrical power. Recently a new cut up mill was completed, which takes the logs in sideways and has a capacity of 25,000 logs per day. The sticks are taken from the mill by a cableway running on a steel trestle sixty feet high, 1,600 feet long with 120-foot spans, delivering on to a pile of a capacity of about 60,000 cords. The company are now erecting two digesters each of 12½ tons capacity, and in addition to the digester house a new boiler house with three 600 horse power Babcock & Wilcox boilers, equipped to burn wood or coal and with induced draft, an extension to the wood room, three more acid towers and an extension to the shipping room.

The mill at Merritton, Ont., has a capacity of 7,500 tons of sulphite pulp, 6,000 tons of ground wood pulp and 6,000 tons of wall paper and building paper. Very little of the ground wood pulp is sold, as most of it is used by the company in the manufacture of paper. The mill is located on the old Welland Canal and is served by spurs of the Grand Trunk and Niagara, St. Catharines and Toronto (Canadian Northern) railroads. There are several paper mills in the locality which purchases practically all their pulp from the Merritton mill. The company control the water power for five levels on the Welland Canal with a total head of sixty-five feet. During last spring a new unloading plant was erected. It consists of a travelling revolving crane which unloads wood from ships in the new canal at the rate of about thirty cords per hour, and discharges into a pond between the new canal and the old canal which has a capacity of about 2,000 cords. The wood is taken from this pond by carrier, and discharges into barges on the old canal, of which there are four, each of about 100 cords capacity. These take the wood down the old canal about four miles to the mill, where it is unloaded by carrier and partly goes into the wood room direct and partly to the storage trestle of about 6,000 cords capacity.

The mills in the province of Quebec are for the manufacture of lumber and have a total capacity of fifteen million feet (B.M.) per annum. At Calumet, clapboards, ties and shingles are turned out. The saw mill has recently been rebuilt and is of steel frame construction throughout, sheathed in concrete with concrete basement floor and plank first floor and galvanized iron siding and roofing. All the principal line shafts are carried on concrete piers and all fast running shafts are in ring oiling bearings. The mill is protected from fire by sprinkler and hydrant systems. It is equipped with one double cutting band saw, with slash, etc., three shingle machines, and four clapboard machines, and it turns out about 1,700 ties, or 40,000 feet of lumber, and 75,000 shingles and 20,000 clapboards per day. The yard is equipped with several lines of industrial track connecting the mill with the drying grounds, storage sheds and with the siding on the Canadian Pacific Railway. Hardwood lumber is manufactured at L'Annonciation, and at the Boule and the Queenouville mills; the two latter mills are situated near St. Faustin.

About fifty million feet of lumber is consumed every year, and

Interior of Power House—Calumet

Clapboard Dressing Factory—Calumet

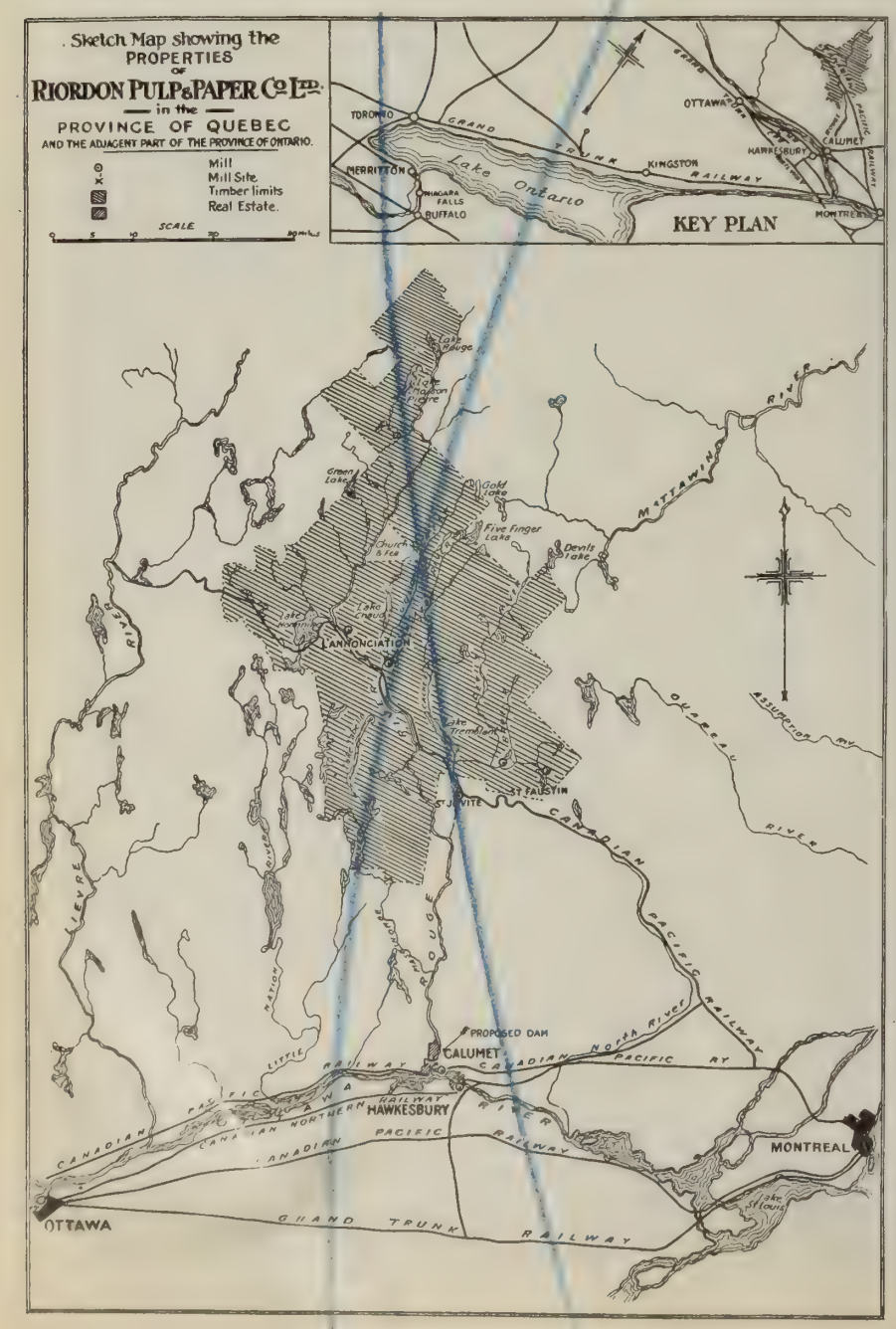
Calumet Saw Mills—Built of Concrete

Calumet—Showing Clapboard Mill and Saw Mill

Hawkesbury Sulphite Mill

the company owns and controls 1,184 square miles of limits on the Rouge River, P.Q., comprising about seventy-five per cent. of the limits on that river. The limits are held under licenses from the provincial government, which confer the right to cut all the lumber (subject to the government regulations) consisting of spruce, pine, balsam, hemlock, cedar and hardwoods. The ground rent payable is $5 per square mile in addition to the regular stumpage dues. It is estimated that there is sufficient timber on the limits for the needs of the company for the next hundred years. The company have been exceedingly careful in their policy of lumber conservation, and have regulated the cut, as far as possible, to the annual growth.

The company is capitalized at $8,500,000, of which $7,000,000 has been issued. The assets are valued at $5,789,500. Of this the timber and timber limits are assessed at $2,056,000, the real estate and water powers at $808,900, and the buildings, machinery, etc., at $1,419,000. The average net earnings of the company from 1909 to 1911 inclusive were $226,410. The following are the directors: Messrs. Chas. Riordon, J. G. Riordon, F. W. Avery, Chas. E. Read, Walter G. White, and Carl Riordon, managing director.



Letters to the Editor

The Grading Problems—Some of the Obstacles

Editor Canada Lumberman:—

We think it would be a good idea to have a general inspection rule for the grading of hardwoods, but think it is impossible to establish such a rule in Quebec province on account of the way people buy their hardwoods—and then, besides, there is so much shipped to England, which is bought and sold on a grade all by itself—so that we think that the man who undertakes to get up a set of rules for the inspection of hardwoods will find a lot of trouble in trying to establish the same—and are afraid it will be turned down the same way as rules for grading pine were, at last meeting of the Canadian Lumbermen's Association.

Yours very truly,
FASSETT LUMBER COMPANY, LIMITED,
J. R. Collins.

Grading Rules Needed in our Foreign Trade

Editor Canada Lumberman:—

We have read with a good deal of interest the two articles published in your issue of the 15th inst., one entitled "A Ship Without a Compass," and the other, "How is Hardwood Graded in Quebec"? the latter written by Mr. H. E. Miles. We believe that it is very desirable to have proper grading rules for both softwoods and hardwoods, and the only way to accomplish their adoption is to agitate the question and get the big men in the trade interested.

You cannot expect the trade to jump at adopting rules that they know little or nothing about. It will also be necessary to show quite plainly to the trade the many advantages to be derived if such rules existed from one end of the country to the other. The Tonawanda, N.Y., rules for softwoods and the National Hardwood Association Rules of the United States would answer for all our purposes in Canada with very few modifications.

A large part of our output is shipped to the United States, and it would be a distinct advantage if our lumber could be graded at shipping points, and shipped to that great market under their well-known grades.

The British markets will also accept lumber shipped under these rules as they have used them for some years and are becoming familiar with them.

If you could get some of the leading manufacturers and dealers to meet and appoint practical men to go carefully over these rules, make any desirable changes, then adopt them, have them printed and start using them in their own operations, you would very soon find the trade fall in line and in four or five years they would be used almost entirely.

Yours truly,
ANGUS McLEAN.

Power Lost in Transmission

We have had some interesting reading and figures on the above subject lately. We have been shown that engineers reckon on 3 to 6 per cent. for shafting losses, while there are cases on record of 60.9 per cent. h.p. being lost. Why is that? some may say. The engineer's allowance of 3 to 6 per cent. must be totally inadequate. No doubt it would have been considered a very small percentage some few years ago, when plain bearings and heavy iron shafts were in universal use. To-day it is to my mind quite ample, providing care has been exercised in the purchase choice of power transmission materials—steel shafts, roller or ball bearings, etc., etc., and what is even more important is having a capable man to instal or erect your power equipment. Any handy man can rig up a line of shafting, but a practical and experienced millwright should be employed if you want a good job and want to run your plant economically.

The most important point of all, however, is the placing of machines or tools. This is an expert's work, while there are a few consulting engineers who have made wood-working machinery plants their specialty.

Now my point is simply this. Power can be transmitted in any factory at 5 per cent. loss if expert advice is obtained and acted upon—direct drives, group drives, step loose pulleys, friction clutches, roller and or ball bearings, solid foundations, good belts, etc. All those items help toward the economical transmission of power, but it wants a capable man to arrange the plant properly.

A great artist was once asked how he produced such beautiful pictures. He replied "Simply get the right color and put it in the right place."—J. M. N. in Mill & Works Practice.

Ontario Sash and Door Association

A meeting of the Ontario Sash and Door Association was held at the King Edward Hotel, Toronto, on the 8th November. The members of the Association present were:

Mr. W. D. Cargill, H. Cargill & Son, Cargill.
Mr. F. W. Brennen, M. Brennen & Sons Mfg. Co., Ltd., Hamilton.
Mr. H. A. Currie, Wilson Bros., Ltd., Collingwood.
Mr. F. Buchanan, C. Lloyd & Son, Wingham.
Mr. R. R. Gardiner, P. W. Gardiner & Son, Galt.
Mr. G. S. Siebert, Georgian Bay Shook Mills, Midland.
Mr. M. J. Emmett, Georgian Bay Shook Mills, Toronto representative.
Mr. S. M. Knechtel, Northern Planing Mills, North Bay.
Mr. G. P. Davidson, Estate of James Davidson, Ottawa.
Mr. O. W. Rhyness, Mickle Dyment & Son, Brantford.
Mr. R. A. Rastall, R. A. Rastall & Co., Toronto.
Mr. J. F. Houston, The Houston Co., Ltd., Tweed.
Mr. R. A. Laidlaw, Laidlaw Lumber Co., Toronto.

Mr. Cargill, as president of the Association, occupied the chair and was supported by Mr. Brennen, the secretary, at the chairman's table.

Mr. Cargill opened the meeting by welcoming those present, and then called upon the secretary to read a number of letters and telegrams of regret from some absent members.

The subject first under discussion and which was, in fact, by far the most important one before the meeting, was the question of the importation of United States doors into Ontario. The word importation was considered too mild by the members present, the majority of them using the term "dumping."

Mr. Buchanan stated that the situation was a very serious one and was rapidly becoming worse. He was of the opinion that the Association should take definite steps at once to place the matter before the Government.

Mr. Gardiner, who had evidently made a thorough study of the situation, stated that he had visited the United States and had obtained his information at first hand from the manufacturers there. He laid before the Association indisputable facts and figures to show that labor for the manufacture of doors could be obtained cheaper in the United States than in Ontario, and that the methods employed by the Americans were superior to ours. He gave particulars of doors imported into the Windsor district, and also details and prices of some laid down in Toronto. In spite of the duty and freight paid by the Americans, it was impossible for Canadian manufacturers to compete with them, nor could business be done at the prices which were in vogue by the Association at the present time. Mr. Gardiner gave the Americans credit for the appearance of the No. 1 doors sent to Toronto. He had carefully examined a number of them, and in no case did he find a flaw in the material, and the workmanship and finish was perfect.

He had also been told by American manufacturers that they were prepared to sell in Canada at a loss, and he and other members made calculations which amply proved that they were actually doing so at the present time.

Mr. Rastall confirmed Mr. Gardiner's statements as to the doors which were imported into Toronto, and said that he himself had been dealing in them. While he very much preferred to sell Canadian doors and was, in fact, prepared to sacrifice a considerable profit to do so, yet the prices at which American doors were now selling made it altogether impossible for him to make a bare living profit from the Canadian article. Mr. Rastall thought that the lumbermen were charging the manufacturers too much for pine, but the general opinion of the meeting was that not much relief was to be expected from this quarter.

The Secretary had stated that it was very difficult to obtain accurate statistics as to the number of doors imported into Canada from the United States, as they were not specially classified in the Customs' reports, being combined with many other manufactured articles under the terms "n.o.p." (not otherwise provided for), and although he had applied to several Government Departments in the United States, he had not been able to obtain figures which could be taken as in any way accurate. Mr. Currie, who was attending a meeting of the Association for the first time, thought that the members should ask their Parliamentary representatives to assist them in getting reliable information on this subject.

Mr. Brennen said it was very noticeable that architects were favoring American doors when making out their specifications, and he had a strong conviction that American door manufacturers were coming into Canada and offering architects considerable inducements for doing so.

A general discussion then took place. Mr. Davidson was of the opinion that the prices quoted for No. 1 doors were too cheap. Mr. Siebert knew of one firm in Montreal which had imported twenty car loads of fir doors from the U. S. Mr. Knechtel thought that the Government should be approached, accurate statistics and actual factory costs to be submitted to them, and adequate protection asked for.

The following motion was then put to the meeting and carried unanimously:—

"Moved by Mr. F. Buchanan and seconded by Mr. G. S. Siebert, that the present committee, with the addition of Messrs. R. R. Gardiner and H. A. Currie, be authorized to consider the question of American doors coming into Canada and, if they deem wise, to interview the Government with regard to a more equitable protection. Also that the same committee take into consideration the revision of our present price list and submit their report to a meeting of the Association to be called by the Chairman at a suitable date. That the committee be authorized to secure the co-operation of other manufacturers, either as individuals or as associations, in other parts of Canada, and also of the Canadian Manufacturers' Association."

It was then moved by Mr. G. S. Siebert and seconded by Mr. O. W. Rhyness, that Mr. Gardiner be the Chairman of this Committee. This was also carried unanimously.

A letter was then read by the Secretary in which Mr. W. D. Cargill, the President of the Association, placed his resignation in the hands of the meeting. Mr. Cargill stated in his letter that he thought a more practical man than himself should hold the responsible position of President of such an Association. General regret was expressed by the members at Mr. Cargill's determination, and upon the earnest solicitation of those present, he was prevailed on to remain at President until the end of the year.

The Secretary then spoke on matters of general interest to the Association. He stated that the membership was about fifty. The work done by the Association was more valuable than appeared on the surface and he augured great things from the enthusiasm of the members then present at the meeting. He thought that the Association did not meet often enough and that a little more energy put into it would be beneficial. He was of the opinion that an occasional social festive gathering should be held, and in this manner the members would become more intimately acquainted with one another.

It was decided to hold the next meeting of the Ontario Sash and Door Association on Friday, December 13th, at 11.30 a.m. in the King Edward Hotel, Toronto.

Specializing in Woods

Almost throughout the history of the lumber industry, lumber has been treated as a crude commodity, and many manufacturers to this date make little attempt to specialize and push their products into uses where they will be preferred to other woods, says the American Lumberman. Specializing is possible and is practiced to a large extent in those woods that go through further processes of manufacture after leaving the sawmill. Woodworkers are inclined to make very fine distinctions in the use of woods, and when they have once acquired the habit of using a certain wood for a particular purpose they are able to turn out a more satisfactory product and therefore hesitate to change from that wood to others.

Certainly a study of the various woods will develop important differences in structure and other qualities that determine their value for various uses. If the manufacturer of these woods and the retailer through whose hands they are sold is thoroughly familiar with the special qualities possessed by the wood he handles he will be able to emphasize these points to increase the sale of the particular wood. Not only that, but when a wood is used for the purpose to which it is specially adapted the user is more likely to be satisfied with his purchase, and lumber in general will be in greater favor than it would be if a wood were pushed into a use to which it is not adapted.

Many of the substitutes that have taken the place of lumber in many uses for which lumber formerly was preferred have won their present position by the kind of specializing that is here considered. In some cases, however, the manufacturers of substitutes have made a mistake in recommending their materials for uses to which they are not adapted, and some of the most serious setbacks they have received have resulted from mistaken zeal of that kind.

Wood is the best material in the world for thousands of purposes, and when each variety of wood is applied to the purposes for which it is best adapted the purchaser and user will be perfectly satisfied, the manufacturer will have a steady demand for his product, and lumber will maintain its supreme position in its legitimate field.

Forest fire loss in British Columbia has been practically nil this year, owing to three reasons, first, frequent wet spells checked the fed fires that got started; second, the force of fire wardens was greater, and third, oil-burning locomotives have replaced the spark-scattering engines over a considerable portion of the C. P. R. in the interior timber belt.

Importance of Uniform Lumber Grading

What Is To Be Our Future?

(Written specially for the Canada Lumberman and Woodworker by H. E. Miles

Mr. H. E. Miles

While the writer has been a reader of the Canada Lumberman as well as other trade journals, to his mind, nothing of greater significance to the lumber industry has appeared in print than the editorial published in the October 15th number of this journal entitled: "A Ship Without a Compass." It has a progressive ring; an ideal to attain.

That some standard to determine the quality and fitness of lumber for the various requirements of the trade is necessary is self evident. And that such a standard to be practical must, not only be adapted to such requirements, but be universally adopted is also self evident. For if the standard employed by one man, or a body of men, is adverse to that held by others with whom they are to deal only confusion and dissatisfaction can prevail. However, despite the existing evils caused by the absence of such a standard in many places, we hear whispers of protest. Although, at present, we are unable to know the reason for such we will lend a listening ear for we are ever out to learn.

We note the editor of this journal states that letters asking for information regarding the inspection of lumber are often received from members of the trade throughout the country. Surely such is only natural in view of the fact that no specific rules are known except by a few, and any man who is at all practical would naturally, on entering the trade, endeavor to acquaint himself with the standard by which he is to manufacture or deal out his goods.

If the grain trade needs a standard by which the various quantities of wheat, oats, etc., are to be measured how much more does that of lumber.

To the writer's mind there is no one industry that calls for so many different grades of its products as that of lumber. However, there are many, as has been before stated in the columns of this journal, who have been shipping lumber for years trusting to the condition of the market and to the honor of the buyer. This is evident from a remark made by one of the most extensive exporters in the Dominion to the effect that when the market is dull pieces of cutting will be rejected that would pass inspection all right at other times. This statement was made to the writer during the panic of 1907 and the shipper further stated that his concern was having a very sorry time of it in the English markets over the matter of inspection although they had previously been very successful in satisfying that trade and at the time was more careful about culling than ever. While it is quite natural that during a depressed market only the better grades find a ready sale, if such markets were controlled by an accepted, written standard by which the grade of lumber to be shipped could be compared, those that were ordered would of necessity, be accepted without a comment, and the experience of the writer is such that when one has sold a shipment of lumber naming some particular rules for its inspection the fellow who kicks is only breeding trouble for himself and without a compromise too if you please. Not that we would infer, for a minute, that he is clever but when one makes his shipments well up to the grade, as he should, and measures and tallies it properly what show has the kicker? He has absolutely none. Such shipper can advise his opponent that he is quite willing to make a reinspection, and in case he does not know it, he soon finds out that the shipper can get top of that shipment and tell why, and back it by a set of printed rules. The only thing for him to do is to pay the fellow for his time and trouble together with travelling and hotel expenses and learn a lesson, or do worse by heaping up more cost for himself by applying to a court.

By virtue of such a course the writer has had, on the whole, only pleasant experiences with the matter of satisfying his customers, and is convinced that as a rule those to whom the manufacturer ships his stock are men of honor who only require what they order and the worth of their money.

Of course there are a few whose nature seems to be to kick without a cause and thus effect a compromise, but if one is properly armed, such tactics are only amusing and affords a bit of recreation that would otherwise have been missed, hence such may be a blessing in disguise.

Thus far we have mentioned only one of the advantages of having a guide, but now we will consider a few relative to the importance of having one that is at home whether in a state, province, or kingdom. While there seems to be a difference in the requirements, we can see no reason why one set of rules cannot be made to cover all the requirements of the entire earth and some of the planets, so far as we know, despite the fact that it is alleged that arbitrary rules can be adopted with satisfaction.

Of course it would be quite as impossible to define every minute detail as it is for a legislature to name all the conditions and circumstances involved in a civil statute, but no judge would contend that the law wasn't applicable because it did not specify every such condition. Neither should any inspector find any trouble to determine the requirement of a set of rules because they might read, "one or more standard defects," as the case might be, "or its equivalent." From personal observations and inquiries into the matter the writer is convinced that nearly all the differences which arise in the trade are due to misunderstandings owing to a lack in not having a definite, universal set of definitions of what constituted the grade of lumber to be shipped.

We understand that it has been objected that, to establish such a system it would involve a staff of inspectors. Well, what of that. There was nothing ever accomplished worth mentioning that didn't require some effort. "A faint heart never won a fair hand" or anything else worth of note, and that matter may prove to be more of a mole hill than a mountain in the end.

When once a set of practical rules are established, printed, and circulated, the culler that holds his job will be required to know something about them and will find himself backed by something more tangible than a rumor from some dead ancestor. And the greater part of the differences that now exist will vanish. However, to adjust the few difficulties by way of disputes that would naturally arise, a few practical men can easily be chosen at different points who can make reinspections and demonstrate their ability by, thus sayeth the pocket volume, that should be in the possession of every dealer and culler in the country. To show the practical workings of these principles we only need to turn to the work of the National Lumber Association in this respect. The matter of uniform grading has been one of the chief objects of this association, if not the chiefest, since its existence and the results of its efforts is felt with high appreciation in all the markets where American lumber is handled. Having a desire to probe to the bottom of this matter, the writer wrote letters of inquiry to many of the prominent concerns as well as different lumber associations and individuals in the trade throughout this country from ocean to ocean. In every instance those responding gave the movement a hearty welcome, and not a desenting note was sounded.

The system as practiced by the National Hardwood Association is lauded everywhere, not only by those belonging to the association but all, so far as we can learn, who have to do with it. Such is also the writer's personal experience. Although never belonging to the association, by the use of their rules he was brought in unison with the hardwood markets of that country, and when hearing people talk unfavorably about shipping to the American markets, complaining that the dealers over there were fussy, and would take advantage, it is apparent that such shippers have never properly learned their definitions or perhaps have had none to learn.

Among many of the letters received, we will here mention the advice contained in one, the writer of which is not a member, for he says: "Although I do not happen to be a member of the National Hardwood Lumber Association, I can, however, endorse their rules, regulations, and practices, as being satisfactory and acceptable all over the United States." And calling attention to their methods of supplying a certificate with each shipment, he remarks, that such is usually accepted by the buyers without any question. This man is well known to the writer and stands at the head of a very large concern who is a heavy buyer of hardwood for the Eastern trade. Such show how their work is regarded by those buying as well as the shippers, and is a sample of the sentiment expressed of the methods employed by that association. And what is true of the inspec-

tion of hardwood is also true of the soft. Take for instance cypress and pine; we know of no market in the United States that is not governed by uniform rules for these particular woods.

It would seem to the writer that the work of the Canadian Lumbermen's Association would be incomplete without adopting the same attitude to the lumber industry and establish uniform grading among its members with a qualified staff of inspectors which would also be appreciated and employed throughout the trade. Or will the dealers be under the necessity of organizing a distinct body for that purpose?

We see by the last report of the National Hardwood Lumber Association that its membership has greatly increased in this country, and why should it not? Its workings are practical and the progressive man, who wishes to avail himself of every advantage, would naturally join just such a body. Hence, unless the Canadian association keeps tab with such matters what can they hope for their future?

It is a very practical proposition for the small manufacturer to sell his stock, "log run dead culls out," or "log run mill culls out," especially that of hardwood, since it requires a large stock to make it profitable to sell in grades, for such involves many disadvantages too well known to need mentioning here. However, there being no definite printed rules to go by, there is perhaps as much or more dissatisfaction over that class of stock as any other, simple as it ought to be. Hence we return to the plea for a system of uniform rules to be universally adopted; not to be uniform for one province, or even one country, but as far as the trade might extend.

To illustrate the practical working of the plan, to secure suitable stock for the many purposes, one only need to look over the rules as adopted by the leading associations in the United States who have established such, to determine just what grades to order. Take for instance those adopted by the National Hardwood people as above referred to; they are so broad and yet definite that no one need to mistake their requirements, and they cover grades enough to enable any wood worker to select a stock especially adapted to his business.

And we would not discriminate against those of the Manufacturers Association for they are perhaps equally as good or better. There is, we believe, but a slight difference, and the writer is not prepared to argue the superiority of either, for having chanced to arm himself first with those of the National, and finding them sufficient for every emergency, so long as being mentioned when selling, he may be biased in their favor. However that may be, it would be ungrateful to discriminate against the bridge that has carried him safely over. And while those of the other association may be superior he has never found any trouble in finding sale for more lumber than he could handle on such rules, although, many times, in the local trade as well as in foreign markets, it was found necessary to first supply the customer with a copy that he might understand exactly what he was buying. In every instance they found favor, even with one of the largest concerns in Liverpool.

If, however, such are not adopted to the English or any other trade the proposed universal rules may have a section that will specify the requirements for that particular market and let that be universal for such market. As to the English market the writer is led to believe that the English dealers have quite uniform ideas regarding the stock they desire from this country but as yet have established no printed rules which would be a great advantage to the trade if they would.

The same principle applies to all soft timber and we find that the several associations who have compiled the rules for the various kinds of wood have done their work so completely that they are inscribed on the statutes of Massachusetts although many of them had their origin in the West and South.

Despite these advantages and many more which would require too much space here to relate, there has ever been an adverse element, so we are instructed by those who have baffled for the cause from its infancy. Nevertheless it has advanced until the principles have become so popular in the United States that a movement is now on foot to try and persuade the two associations holding the most popular rules, for the grading of hardwood, to slightly modify one or both so they may read alike, thus establishing uniform grading to the fullest extent, for, as we have seen, they are so universally adopted that in case of a dispute, where no rules have been mentioned in contract, it would be very rare that any other could be applied from Maine to California.

A Glimpse of the History of the Rise and Progress of the Movement

When the National Wholesale Lumber Association was launched in 1894 it appears that conditions in the States were worse than at the present time here, for there was practically no rules available. And referring to advice rendered by the secretary of said association, they found it at first very hard to get their members interested in such a project, but after some effort on the part of its leaders a separate association was organized having for its aim, not only to establish some rules, but uniform grading for hardwood throughout the land. Although it required some time to get sufficiently established to command recognition it finally succeeded and a few years later some of the manufacturers of the Middle West appreciating the necessity of such a system, but believing those outlined by the former organizations was not quite to their liking, started another organization for the purpose, and they were soon joined by still another who set about to accomplish the same end but to found rules a little more to their liking, each of which have made great progress. Although such placed three set of rules before the public three set was far better than one and at present the popular sentiment seems to be in favor of having but one. Soon two of these became very popular and the movement to have them modified to read alike is in the hands of a committee composed of some of the most practical and influential members of the trade who are evidently in earnest about the matter and expect to get these two associations to see eye to eye, thus establishing uniform grading throughout.

If it is alleged that the adoption of such would mean a cater in favor of any one class of dealers, it will be noticed that, those who compose the membership of those organizations who have been the most instrumental in advocating it is composed of men in every sphere of the trade, in almost equal numbers.

The principles are certainly as beneficial to one class as to another. In fact they are of no use to one unless adopted by the others.

We note that some have objected to universal grading on the grounds that they have been to great expense and much effort to established rules of their own and now to throw them all up and adapt themselves to others would not be agreeable, besides, such would likely effect their business, temporarily at least.

We have some sympathy with this class of people since it is evident that they are possessed with more originality and ideality than some who have not even gone so far as to employ any rules. However, we trust they will not spoil the good impression given, by becoming narrowed or unwilling to sacrifice a bit of apparent good fortune for the sake of others. Who knows that if such an one has established proper definitions that his may not be the ones to be universally adopted? If they are not ideal he should certainly be willing to exchange them for something better. This is no age to build castles, feudal days have gone by, and the man to be progressive must be broad minded or get out of the ring.

This subject means something to the people of Canada when we come to realize that much of the civilized world is looking to us to supply them with lumber for future generations. If we are to keep pace with the times and become really progressive can we confine ourselves to a class of rules only applicable to a portion of the trade; or retain so many that those placing orders cannot know what to expect owing to such a babylon of voices?

Should we not rather become of one mind and unite in attempting to place the lumber industry on a solid commercial basis by establishing a system of grading that will command respect the world over?

There are many dealers in this country handling millions of feet of lumber each year that never saw a copy of any rules and there are a few who have, some of which, however, have a marked tendency to try and keep others as ignorant as possible. The writer has observed this many times and when first entering business he asked one inspector, who chanced to have a copy, why the people he represented did not advise those of whom they bought lumber concerning the rules on which it was to be inspected also telling them where they could secure copies of the same. Whereupon he replied that it was poor policy to do that; that the public already knew too much about them. However, after enjoining great secrecy he consented to make a loan of that certain copy during noon hour. This was the first copy of any rules for the inspection of lumber that the writer had ever seen. After perusing its contents, copying a portion of it, and making note of where copies of it were kept for sale, it was returned. Such was the door that led to that for which the writer had been seeking.

There may be more of this class running at large but such people cut but little figure either way, hence we look forward to the time when the Canadian Lumberman Association will get hold of this thing in earnest and push it to its finish. However, should they neglect the privilege we are sure that others will rise from this cosmopolitan population and do the work.

We are looking forward to expansion of trade, are we not? Then why should we not broaden our minds and study the world's requirements which will enable us to supply them. Can this be done by withering all up and be content to grade our lumber according to the ideas of the operators of a few dressing mills or retail dealers located in one part of the country.

If we are to be at all progressive we must win the trade of the Latin States of South America, and we are glad to know that the Canadian Lumbermen's Association have contemplated sending a

representative there to study their requirements and to cast an influence for us. Now suppose he is to start soon, can you see any disadvantage that he is up against? He can tell of the great trees of British Columbia and of our well equipped mills and facilities for prompt shipment, etc., but to the writer's mind he would still be lacking something. Some practical man might wish to see a copy of the rules we employed for the grading of our output. Perhaps some of the more clever members of our commonwealth would manage to get over the matter without embarrassment but the writer would prefer to be excused when approaching that point. On the other hand our representative would more likely carry an influence if he were able to immediately present the inquirier with a nicely bound copy of practical grading from which he might easily select just the stock he was looking for. In such an event he would likely be impressed that we as a people were systematic and technical; that we had cullers that knew their business and had a standard whereby any dispute might be settled.

Are we to hold the largest timber wealth in the western hemisphere and not know how to classify the product? Are our dealers to be groping in darkness, while our cousins over the line march on to victory in the foreign trade singing the harmonious notes of uniform grading? This question is up to the dealers of Canada. How will they act upon it?

Utilization of Hardwoods

Without much noise, blowing of trumpets, or brass band parading of any kind, the hardwood door is making more progress to-day than any other one article manufactured from wood. It is increasing in volume steadily and continuously at such a rate that it is doubtful if anyone can keep up with it, even to the point of making a correct record of its progress.

It is not merely the hardwood door turned out by the conspicuous and well-known door manufacturers who specialize in this work, but all over the country, planing mills are continually turning out increased quantities of hardwood doors. The output of each mill perhaps is insignificant as compared to the output of the door factory proper, but the output from all planing mills all over the country makes an enormous volume.

The hardwood door of to-day is usually a veneered door. Now and then may be found a solid door, but these are exceptions and are made to order to satisfy a sentimental rather than a structural requirement. There are doors with thin hardwood veneer, some with thick hardwood veneer, doors with plain hardwood veneer and doors with extremely fancy veneer very carefully matched and artistically finished.

The standard door is veneered with hardwood veneer one-eighth of an inch thick. In the fancy door, taking mahogany and other figured woods, thin veneer is used, because it is not practical to get it in the standard thickness of the door stock. Also, there is a disposition now in building doors for outside, to use a heavy veneer. Some of it is made as thick as one-fourth of an inch on the theory that it will resist the moisture better and there will not be any likelihood of veneer peeling when thin veneer is used and the door is exposed to weather on the outside.

In the veneer door manufacturing world proper, birch is the first wood that became conspicuous in the making of the hardwood door. Then came oak, and now we have gum, and the rivalry among these three popular native woods promises to be quite lively in the future.

Already the exclusive makers of birch doors have found themselves compelled to include a line of oak doors and a fair quantity of gum, and those who began making oak doors exclusively at first have found themselves compelled to add a line of birch doors, and following right on the heels of this comes the gum door clamoring for recognition in the front ranks, too. This is among the door factories proper. In the planing mills there is the same rivalry as to choice, but the planing mill men themselves do not take much hand in it. They simply make the doors to order and supply whichever of the native woods is wanted, or when required make the extra fancy doors with mahogany, Circassian walnut, or whatever is specified.

The explanation of the remarkable progress made lately is to be found in the fact that the builders of modest homes have taken to hardwood doors. They cost a little more than the high-grade solid pine doors. When a prospective home builder goes into some newly finished home and sees hardwood doors, the pine doors are no longer attractive and he wants hardwood doors immediately.

The only people objecting to hardwood doors are the carpenters who find it a little more tedious to put up a hardwood door. So, they are inclined to charge a little more for them, but when the house builder gets them he feels like he has had his money's worth even though the doors cost a little more and the carpenter sticks him a little extra for the hanging.—Hardwood Record.

Woods Used in Saw Handles

Although one is not apt to think of the apple tree as a source of timber, as a matter of fact at least 2,000,000 board feet of apple lumber is manufactured annually into saw handles, says the Hardwood Record. This, too, is about the only important use to which it is put, though small amounts are made into smoking pipes, and miscellaneous articles of turnery. The wood was formerly used for shuttles and gave excellent satisfaction, but has been entirely superseded by persimmon and dogwood. As a fuel wood apple has few superiors.

Apple wood is usually the product of old orchards which are removed on account of age. Owing to the inroads of pests of various kinds during the last few years, a comparatively large amount of apple timber has been offered for sale, especially in the Middle West, where old trees are being replaced by new. The supply of this timber comes from Kentucky, Ohio, Indiana, Illinois, Michigan, Pennsylvania, New York, Delaware, New Jersey and Maryland.

Small lots are occasionally imported from Canada. It is interesting to note that when the collectors inspected the shipments they assessed it as "cabinet wood not further manufactured than by sawing." The importers were dissatisfied with this classification and succeeded in convincing the collectors that apple wood is never used for cabinet purposes, but almost exclusively for saw handles. The Board of General Appraisers sustained the importers' contention and the wood enters as plain lumber.

Apple lumber is sawed from butts which run two feet or more in length, occasionally reaching eight feet long. Bolts less than thirteen inches in diameter are ordinarily not used, "for the reason," as a manufacturer explains it, "if the butt is smaller than that the wood is worthless for making saw handles, since a certain width clear of heart is required."

Sometimes logs are shipped to the factories and sawed there. More often the manufacturer buys the material sawed into lumber from 6 to 6½ inches wide and 1⅛ to 1 3/16 inches thick. The length of piece required for a saw handle is nine inches.

When the timber is first cut it has a reddish yellow color. It is customary to subject it to a steaming process, which reddens and deepens the color and renders it more uniform. To secure the best results the steaming must be done after the timber is cut and before the sap is dried out. This is accomplished by placing the green wood in a tightly closed box or room and subjecting it to the action of live steam for a period varying from thirty-six to seventy-two hours, depending on the length of time the timber has been cut; the greener the material the less time required in the steam box to get good results.

Following is a brief description of the processes of manufacture of Disston hardsaw handles: "The thoroughly seasoned lumber is planed down to an even thickness and then sawed into small pieces, generally of such size that two handles may be made from each of them. The makers then trace the shape of the handles with lead pencils around sheet steel patterns. They are then cut out by the band saws, after which a hole is bored in the center through which the jig saw enters and cuts out the center piece. They are now sent to the 'nosing' machine, where the nose is shaped. 'Jimping' is the next operation. In this the roughly cut handles are brought into contact with swiftly revolving cutters, and the edges are rounded. The handles now pass on to the filers, who work them into the finished shape. This is followed by sand-papering on belt machines. The next step is varnishing, after which comes 'slitting,' as it is termed, or the process of sawing the slot in the handle in which the blade rests.

Apple wood, being hard, of very fine and uniform texture, capable of receiving a high polish though of little lustre, is very well adapted for handsaw handles. The deep, uniform color makes it attractive and the trade has become so used to the wood for the better grades of handles that none other is considered satisfactory. The price of the material is so high, however, that for the cheaper saws beech is a common substitute. What beech lacks is natural beauty and high polish is offset for general utility by its greater strength, toughness and vitality. Other woods used for handsaw handles are black cherry, red gum and maple and, where specially ordered, black walnut and mahogany. Handles for long or cross-cut saws are made principally of beech and maple, though some few are of hickory.

H. Morton Jones, of the R. T. Jones Lumber Company, of North Tonawanda, has been appointed a first lieutenant in Company K, the local company of state militia, attached to the 74th Regiment of Buffalo.

Mr. H. J. Hoadley, recently retired from wholesale lumber business in North Tonawanda, is moving to Buffalo. Mr. W. H. Griffin, of Silverthorne & Company, of North Tonawanda, has bought the Hoadley home on Christiana street.

Why do Lumbermen not apply Forestry?

Little Cause as Yet for Congratulation—Few Timberland Owners Using Successful Methods for Ensuring a Continuous Crop

By Dr. B. E. Fernow*

It is precisely thirty years, a generation, since the forestry movement was publicly started in the United States by the Forestry Congress meeting in Cincinnati.

What success has it had in persuading timberland owners to apply forestry methods to their holdings? Outside the Federal Government, which has actually and on a large scale begun to introduce forest management on its timberlands, outside of a few half-hearted and small beginnings of some of the States to bring their few acres of timberland under some systematic treatment, how many private owners and on how many acres have they made even such beginnings in changing their attitude towards their timber properties and cut-over lands, such as forestry implies?

When it is realized that the private ownership represents about three-quarters of the total timber supply and forest area of the country, the importance of the attitude of the owners becomes apparent.

Whatever some hopeful enthusiasts may think of the situation, to the cold-blooded reasoner from facts, there is as yet little cause for congratulation visible. There is, to be sure, little information published on the subject, but we may be quite sure that everything worth noting is on record regarding private endeavor in introducing forest management, and in what is on record the most comprehensive construction has been given as to what includes forest management.

The result of an inquiry reported in the second volume of the Report of the Commission of Conservation show that out of around 600 firms, representing not as much as three per cent. of the total privately owned acreage, hardly one-fifth in number uses some conservative methods, one-quarter is held for a future crop, and only a little over one-third in acreage reports even measures taken for protection against fires! In another inquiry, the acreage reported protected against fire rises to as much as 50 per cent. of the reported ownership. If these reported conditions were at all representative, they would show, that still most owners of timberland do not even take precaution to protect their property against fire. In this respect, however, great strides for the better have been made lately, and, if a new inquiry should develop that really effective measures are in operation on half the acreage of cut-over lands—the most important part for the future—our hopes for the eventual application of forestry would rise one hundred per cent.

This leads us to the question: is protection against fire, forestry? Is the surveying and mapping, and more careful estimating and locating of timber, and systematic arrangement of logging operations, forestry? Is even, holding for a future crop forestry? Indeed, what is forestry?

It seems rather late in the day to raise this question, and yet even professional foresters have hazy notions as to how to answer the question; the incidents of forest management appear to them principal issues! Of course, protection against fire is necessary in order to carry on forest management. So in any other business protection of the property is a first essential; it is merely a general, not a specific, measure, belonging to any one business.

Of course, it is wisdom to base logging operations on systematic plans based on accurate information, as in any other business. This also is merely a general management not specific to forestry except in the method of ascertainment. It is, to be sure, also an incident to forest management, but not an essential. Lumbermen have done similar things without any thought or knowledge of forestry, in a cruder manner, and may now find that the foresters do it better and cheaper than the old cruisers, hence may be inclined to employ foresters.

Lumbermen who will make plans to protect their property will map and plan the operations on their holdings systematically, they will adopt measures to reduce waste in the logging, to utilize more closely, etc., merely because they find that it pays in the present. The cutting to a diameter limit, which is advocated as a forestry measure, is also commendable to the lumberman only when he has figured out that his present business of exploiting the forest pays better if he delays for some years the cutting of smaller sizes until they have increased in diameter and value; it is a short time financial calculation that induces him which has not necessarily anything to do with forestry. Even the "holding for future crop" will, we suspect, be found in most cases to reduce itself to the same position, namely, a waiting for increase in size and value of the present immature crop which Nature had provided.

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Finally, we must declare, that leaving mature timber standing is no more forestry than storing and keeping locked up goods in trade!

Some of my professional friends will take issue with these declarations, since all these measures are incidents or may be turned into useful adjuncts to forestry management. But I take the position that from the broad standpoint of political economy the idea of forestry involves an attitude of the owner towards his property, which either makes these measures a part of a forestry program or excludes them from such designation.

The forest can be looked upon either as a mine, the stored material of preceding ages, which the lumberman exploits, or else it may be conceived as a crop, which the forester harvests and reproduces. Reproduction is the key-note of forestry; it denotes the difference between the exploiter, the converter of material into serviceable form, and the forester, the crop producer.

How many of the timberland owners, even those who adopt the measures enumerated above for improving their business conduct, look at their property as a means for continuous crop production, for sustained yield? I do not mean the strict economic sustained yield, i.e., the deliberate, intentional devotion of the soil to the production of wood crops. I venture to assert that there are as yet not as many as can be counted on the fingers of two hands who would affirm that they had deliberately started into the business of wood production—which is forestry!

Even those, who have started planting their waste places—and we are glad to see their number growing rapidly—will be found often dubious as to their purpose.

At any rate, we come back to the original statement that attempts on the part of corporations and individuals to start in the forestry business are so sporadic and few that it is worth while to inquire for the cause of the failure to follow our advice.

There is one simple answer, the one condition by which forest cropping differs from all other business: the time element and the many uncertainties which that involves!

It takes 60 to 100 years and more to grow saw timber from the seed—as a rule, varying with locality and species, 1 inch in 5 to 10 years in diameter may be secured on the average; the sower rarely is the reaper. During all this time there is the fire risk, and the risk from wind and insects; there is the capital invested without a chance of changing the investment. Will, so long hence, wood, or this particular kind of wood be wanted in the market? Will substitutes have replaced wood? What will be the wood prices? Will our present outlay be returned to us with proper interest earnings?

We may point to Europe and show that forest property after all is on the whole not necessarily so hazardous as with us at present—with us it is still more hazardous than any other and for reasons must remain so for some time; that, in spite of substitutes, wood consumption has continuously increased; that wood prices have continuously increased; that excellent returns have come from persistent forest management.

All this occurred under other conditions of civilization, and in the past, who can assure us of the future? Forestry deals in futures, and if it is hazardous to deal in futures in Wall street, so the forester owner thinks it is wiser to secure the present dollar instead of waiting for the possible two. The disposition of all our people is to live for the present, and the timberland owner is naturally not an exception.

This sounds altogether pessimistic. It is not intended to be so, but is to bring home the fact that forestry as defined above is a business sui generis, that it can be successfully carried on only under special conditions, and that private, present interest is not likely to enter it with ardor and persistency. One of the important conditions for its successful conduct—we leave out of consideration the farmer's wood lot—is size.

Some twenty years ago I was asked whether I thought that forestry could be profitably practised in the United States at that time. I did not hesitate to state the conditions under which, in my opinion, it could be practised. Give me two million acres of southern pine and three million dollars of capital, and it would not be difficult to demonstrate that a real forestry practice, i.e., deliberate, systematic reproduction of the cut areas will pay in the long run.

Altogether, forestry is a business for the long run, hence persistent corporations, municipalities, States who live into the future are the proper persons to engage in it. Until we wake up to this realization much energy to induce small forest owners to go into the business will be wasted.

St. Lawrence Insurance Rates Unfair

High Premiums a Relic of Former Days Before Improvements to Navigation—Heavy Freight Rates the Result

A recent speech delivered by Mr. J. D. Hazen, Minister of Marine & Fisheries, at Montreal, has again directed attention to the discrimination in insurance rates against British North American ports. The subject is a very old one, and many representations have been made to British underwriters on behalf of Canadian merchants and shipowners, but unfortunately those on this side can obtain no relief. Montreal, as the national port, naturally feels the injustice more than any other, and lumbermen, who ship the bulk of their products from that port, share in the burdens which the excessive rates of insurance on hulls and cargo impose on the exporting firms. The city of Quebec and the ports in the Maritime Provinces are also more or less affected. Canadian lumber has enough to do to hold its own in the British markets, owing to the keen competition of other woods, and the chances of our keeping and improving business are distinctly handicapped by insurance rates, which, in their operation, prevent the entry of tramp vessels into the St. Lawrence trade, thus enabling the regular steamship lines to keep up freight rates to a high level. There are many complaints to-day of shortage of tonnage, but not until the rates of insurance on hulls are lowered is there any likelihood of permanent relief. Then we should get a number of tramp vessels at Canadian ports, and the resultant competition with the present Conference steamers would make freights more favorable for importers and exporters. Insurance rates for cargoes would, no doubt, also be lowered, and merchants would be benefited in a double sense.

The St. Lawrence rates of insurance are about as high as those for Boston, New York, Portland, etc. The extra premiums are prohibitive to all vessels save the regular lines. It is not contended that the rates for the St. Lawrence should be the same as for New York or Boston, but it is asserted that they are unduly high, and that they drive away business to competing United States ports. Previous to 1900, outside tonnage was allowed unrestricted navigation in Canadian waters between April 1st and October 31st without extra charge, but from that date the obnoxious B. N. A. clauses have been added to all policies on hulls. This clause is as follows: "Warranted not to enter or sail from any port or ports, place or places, in British North America, except Halifax for purposes of coaling. On payment of an additional premium of per cent. it is agreed to cancel above warranty—except British North America between September 1st and April 1st." The clauses mean the imposition of at least ten per cent. on ocean freights, and have resulted in tramps being practically excluded from Canadian waters.

The clauses referred to, were inserted with the object of providing for unusual risks, especially in the St. Lawrence. Since that date, however, a great deal has been spent in buoying, deepening, lighting, and improving the St. Lawrence, until to-day there is probably no river in the world which is better lighted and buoyed. Rates have no doubt gone down since 1900 but not to the extent they ought to have and the obnoxious clauses still stand, shipowners and merchants thus being penalised. The extent to which the latter are handicapped may be judged from the fact that 2½ per cent. per annum is charged to owners to the United States, while it costs from four to six per cent. for regular lines to Canada.

To quote the words of Major G. W. Stephens, former head of the Harbor Board: "These high rates on cargoes and hulls to Canada are maintained, and the restrictions on outside tonnage adhered to—in spite of the fact that marine insurance companies and underwriters through the improvements carried out, and through the higher class risk resulting from the bigger and better ships now employed in the trade, are admittedly making large profits; in spite of the fact that the last few years have seen a marked reduction in the number of accidents in Canadian waters; in spite of the fact that the aids to navigation provided by the Canadian Government have been carried out without the addition of a single cent to underwriters or ship owners; and in spite of the fact that the size of steamers navigating Canadian waters has almost doubled during the period under consideration."

So far the London underwriters have refused to give way to the representations from this side. It is asserted that the risks in the St. Lawrence are unduly hazardous, but the underwriters have been challenged in vain to prove this assertion by the production of their books. As a matter of fact, it is known that the business is very profitable, and out of the two and a half to three million dollars annually paid in premiums on vessels and cargoes it is probable that, even in the worst years, one-half of this sum is profit. It is also asserted that fogs are very prevalent and result in big losses. No one can deny that fogs occur in the St. Lawrence and the Gulf; but vessels to New York run equal risks with fogs, and yet the premiums are substantially lower than those to the St. Lawrence. The fact appears to be that years ago, before the improvements were made, the St. Lawrence received a bad name, and that, despite the enormous sum spent on the river, the bad name still remains. The underwriters are not inclined to recede from their position, and it may be that there will be no relief until Canadian shippers formulate an insurance plan of their own, backed by government aid.

May Follow Ontario's Experiment

The experiment of the Ontario Government in calling for tenders for the Abitibi pulp limit in northern Ontario, and stipulating in the contract made with the successful tenderers that in addition to the bonus of $5,000 a year to be paid to the Government, a paper mill of 100 tons capacity must be erected, and $50,000 spent in erecting buildings and preparing land for settlers, is being watched with much interest in Government circles in Quebec. The Quebec Provincial Government, like that of Ontario, has vast areas of timber country in the neighborhood of Abitibi, and thence eastward sheer to the Atlantic coast, and it is stated that a scheme is now under consideration for securing the establishment of a series of pulp and paper mills throughout the country, on lines similar to the experiment of Ontario. The National Transcontinental Railway will afford an easy outlet for the products.

Forestry as Taught at Laval

There is a larger enrollment than ever this season in the Forestry School established by the Government of Quebec in connection with Laval University. This is consequent on the greatly increased interest in the paper making, pulp wood and lumber industries of the province, and the promising careers offered by the Government to expert forestry men. It was only in June last that the first students of the school graduated. There were seven of them, and on getting their diplomas they were at once employed by the Government to take places in the parties sent out on the work of exploring and classifying the land and timber right across the northern part of the province, from Abitibi, on the Ontario border, to the Gaspe coast.

B. C. Exhibit Wins First Prize

Some exceptionally fine British Columbia coast timber samples attracted wide and favorable attention at a recent inter-provincial competition at Toronto. A display of British Columbia fir, spruce, cedar and hemlock won first prize. The first sample of each was a four-foot length from the butt of a log. The second sample consisted of a four-foot length squared. The third consisted of a piece of log sawn into a plank and dressed and finished to bring out the natural beauty of the grain. With the exception of the spruce the logs were all more than ten feet in diameter. Planks ten feet wide without a defect of any description could not help but attract attention in the East.

Quebec, Oct. 31; (Special correspondence of the Canada Lumberman).—A deputation of paper manufacturers in the Province of Quebec to-day waited on the Provincial Cabinet with a request that the government abolish the restriction on the export of pulp wood from Crown lands to the United States. The companies represented were the Laurentide, the Belgo, Wayagamack, and Price Bros.

On behalf of the deputation it was stated that the restrictions handicapped the news print companies in entering the United States market to the south, as the United States Government imposed a duty of $5.75 per ton on newsprint manufactured from pulpwood grown on Crown lands, paper from free limits wood being admitted free.

The Bateman Manufacturing Company, Grenlock, N. J., have purchased the plants of the Wilkinson Plough Company, Limited, and the Toronto Pressed Steel Company, Limited. The new company will be known as the Bateman-Wilkinson Company, Limited, and will manufacture the same lines as the two companies they have purchased, and also their own lines, viz.: potato planting and digging machinery, spraying machinery, riding cultivators, horse hoes, and small garden tools.

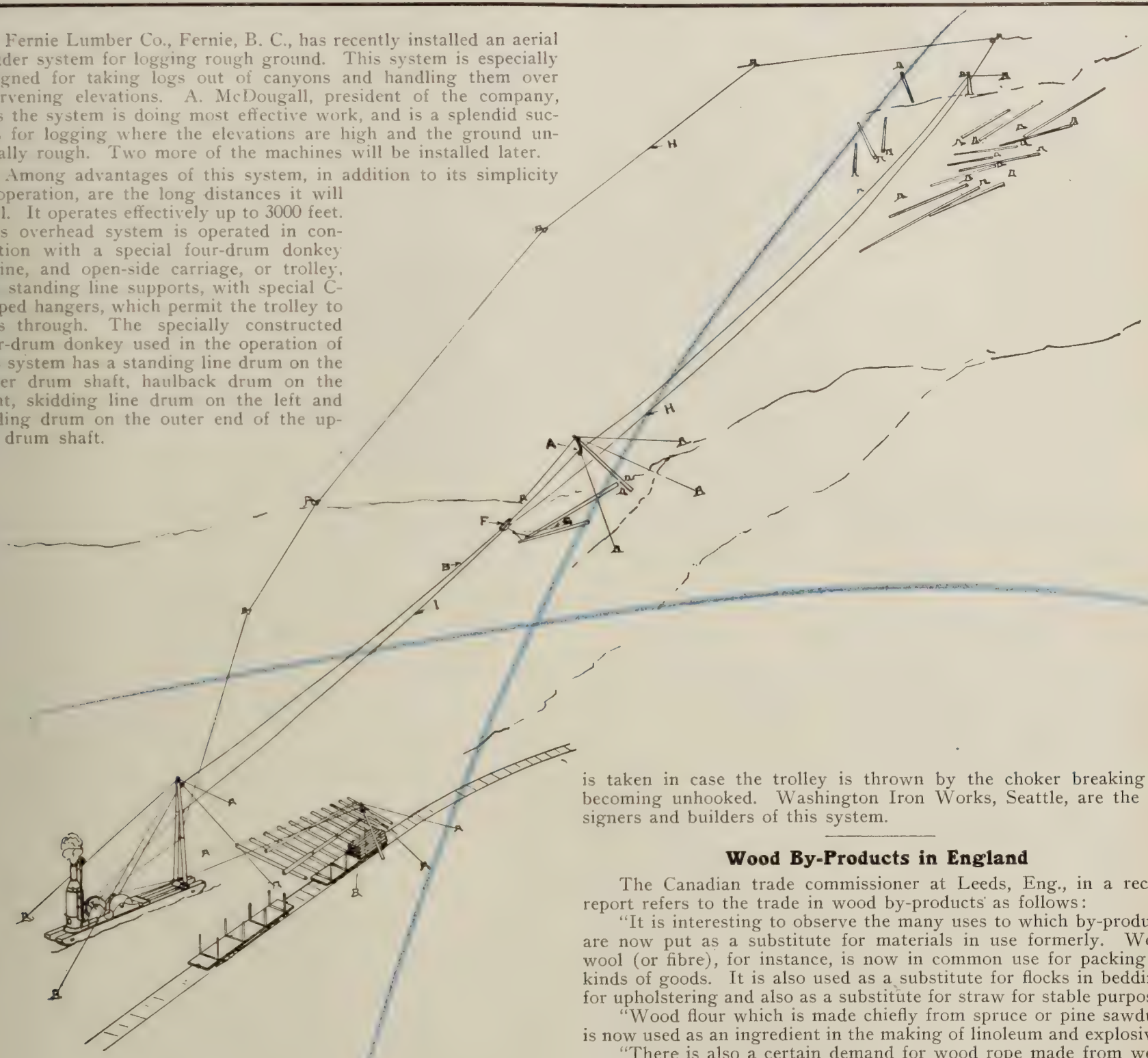
L. G. Dennis, hydro-electric engineer for the Conservation Commission, who has just returned from an extensive trip of investigation of the rivers draining the northern portions of Saskatchewan and Alberta, reports that they contain splendid water powers which will be of great value in the development of the extensive pulpwood and lumber resources of the northwest.

October receipts of lumber at the Tonawandas showed a considerable decrease from those of the same month a year ago. Very little Canadian stock is represented in the following total: 42,303,429 feet. October last year showed receipts 46,754,706 feet.

Cableway System Utilized in Interior British Columbia

Fernie Lumber Co., Fernie, B. C., has recently installed an aerial skidder system for logging rough ground. This system is especially designed for taking logs out of canyons and handling them over intervening elevations. A. McDougall, president of the company, says the system is doing most effective work, and is a splendid success for logging where the elevations are high and the ground unusually rough. Two more of the machines will be installed later.

Among advantages of this system, in addition to its simplicity of operation, are the long distances it will haul. It operates effectively up to 3000 feet. This overhead system is operated in connection with a special four-drum donkey engine, and open-side carriage, or trolley, and standing line supports, with special C-shaped hangers, which permit the trolley to pass through. The specially constructed four-drum donkey used in the operation of this system has a standing line drum on the lower drum shaft, haulback drum on the right, skidding line drum on the left and loading drum on the outer end of the upper drum shaft.



The slack is taken up by means of a chain hook, which is attached by about three feet of three-eights inch chain, to a swamp hook, which is hooked to any convenient stump. From the bull hook a chain about thirty feet long trails, and when the trolley is brought back to the proper position the chain hook is fastened on the tag chain, and as the trolley goes back to the woods the slack is absorbed. By this means any amount of slack can be successfully overcome. For average yarding conditions 125 feet to 150 feet would be the most it is advisable to work. Operating at 1000 feet the rig goes out in about one and a half minutes, pulls slack in one-half minute and comes in with the load in two minutes.

The hangers are provided where long-distance hauls are made, or where hauling over ridges is necessary, and are special C-shaped, used to support the line, where it would otherwise sag too low. These hangers are suspended on gin poles, the standing line resting on a steel sheave.

A special trolley, constructed with open side, is used in order to pass over these supports. To prevent the trolley from jumping off the standing line, two hinged bars of sufficient weight, drop and thus keep the gap in the side of the trolley closed. This precaution is taken in case the trolley is thrown by the choker breaking or becoming unhooked. Washington Iron Works, Seattle, are the designers and builders of this system.

Wood By-Products in England

The Canadian trade commissioner at Leeds, Eng., in a recent report refers to the trade in wood by-products as follows:

"It is interesting to observe the many uses to which by-products are now put as a substitute for materials in use formerly. Wood wool (or fibre), for instance, is now in common use for packing all kinds of goods. It is also used as a substitute for flocks in bedding; for upholstering and also as a substitute for straw for stable purposes.

"Wood flour which is made chiefly from spruce or pine sawdust, is now used as an ingredient in the making of linoleum and explosives.

"There is also a certain demand for wood rope made from wood fibre which is used by engineers and iron founders and also by furniture and other packers.

"Supplies of these products are obtainable in England and are imported from Norway, Sweden, Belgium and Germany. From inquiries made as to the prospects for Canadian manufacturers some doubt is expressed as to whether the cost of freight from Canada would not prove an obstacle to the trade."

The shipment of timber to Manchester, Eng., is one of the chief branches of traffic showing an increase. During the seven months ended July 31, 1912, 270,942 loads of sawn and hewn timber arrived there as compared with 225,666 loads during the same period of 1911, showing an increase of 51,276 loads.

British Columbia's timber revenue for the month of September amounted to $255,681.93, made up as follows: Licenses, west of Cascades, $889; revenue, $133,853.81; licenses, east of Cascades, $434; revenue, $58,590; transfer fees, $600; penalties, $1,725; royalties, $55,781.77; scaling fees, $3,378.15; fees for registering timber marks, $58; hand loggers' licenses, $225; rentals, $1,469.70. The amount paid to the forest protection fund during the month was $7,002.80.

The Question of Cost Accounting

Need of a Uniform System—The Experience of a Leading Box Manufacturer

That the box manufacturer is still greatly interested in the subject of cost accounting in the box factory and uniform accounting, is evident from the letters that have been received on this always interesting subject, says Barrel and Box.

One of the main features that has been brought out by these letters is the fact that there is a great variety of ways in which the box man is to-day arriving at his cost. Every system in use has considerable merit attached to it and almost to a man at the box factory, indicates that while they have a good system, they are constantly seeking to improve it and make it more satisfactory and to produce better results than they are obtaining from their present plan.

This only serves to emphasize the need of a uniform system of cost accounting. On the other hand there seems to be a great difficulty in the way of this from the fact that nearly every plant has a line of business peculiarly its own. This fact has often been stated and yet expert cost accountants look upon this as rather an antiquated idea in the minds of the box manufacturers, for they contend: "A box factory is a box factory and in the main the operations must be more or less alike." This is a broad statement, and inasmuch as it is a broad statement, it is true. It is only upon investigating the individual cases that the fact that every box factory has a problem peculiarly its own, is a fact that can not be denied. To bring out this point more clearly, the following letter from a leading box manufacturer will be of interest. Speaking of cost systems in the box factory, this manufacturer says:

"Such systems will depend entirely upon the class of trade and style of boxes produced and can only give you my ideas and opinions as it relates to our own business.

"What we are all after is that difference between the net selling price and the cost of material, manufacturing expense and selling expense and to burden any business with detailed reports, cost systems and all that will accomplish nothing in the end. What is necessary is the manufacturing cost of the different styles of work, and this can only be obtained by running it for a period of six months or a year and from these figures we can arrive at a basis of figuring future orders. It is not necessary to test this out upon individual orders, but strike an average upon the different styles of boxes, and by styles I mean also small boxes—such as drug and jewelry boxes —medium-sized boxes containing from two to six feet and the larger boxes.

"We are exclusive manufacturers of shooks in gum and cottonwood and the greater percent. of our shooks are a combination of veneer sides, tops and bottoms and sawed ends. Our principal output is egg cases, cracker boxes, can boxes, macaroni and starch box shooks. We are operating our own saw and veneer mills. Payrolls for the different departments are kept separate. That is to say, lumber is charged with the timber and operating expenses of the saw mill and 'veneer' with the timber and operating expenses of the veneer mill. Then, to carry it further, shooks are charged with the agreed price for the lumber and the veneer and with the operating expenses of the box factories, which expenses put the shooks on board cars for shipment.

"The amount of feet of lumber and veneer is kept and then the net feetage of the shooks produced by the box factories and the difference between these two amounts, together with the inventory of whatever is in the process of manufacture through the box factories, gives us our wasteage for any given length of time and we are thus able to arrive at a percentage of wasteage to figure shooks of this class.

"As regards forms kept, would say that in addition to the lumber and veneer being measured into the factories and these records kept, we also tally the finished products as it is delivered to the warehouses, from which we figure the net feetage.

"In other words, every morning I receive reports from both of our factories showing the gross feetage of lumber and veneer delivered to the box factories, the number of bundles produced and kind of shooks, the net feetage of lumber worked and kind, the net feetage of veneer worked and kind, and the total of both veneer and lumber. These reports are tabulated for comparison and weekly and monthly reports made from same. In addition to this in the case of standard stock, such as egg cases and can boxes, I keep a perpetual inventory so that I may know from day to day just the condition of the stock. Weekly inventories are also taken of our box lumber and veneer, both dry and green, so that I am kept in full information of the conditions of our stocks and can tell what we can produce and what orders we can accept and time of shipments.

"As stated before I do not feel that a detailed cost system, which covers every individual order, is of any use to a shook plant, for it adds to the expense and a lot of reports which are cumbersome and mean nothing when it comes to figuring profits. This is especially so in a plant making the class of shooks we are here. By taking inventories four times a year and closing up your books sufficiently to know the losses and gains one cannot go so very far wrong."

That some system is needed, and in fact wanted badly by the smaller manufacturers, is shown by the following letter from a well-known box manufacturer, which explains itself:

"We have no blanks nor forms at present that we use in our factory for keeping track of the workings in the mill. We have tried to get up forms, but could never determine on anything that was satisfactory. Our superintendent, who is at present away on his vacation, usually writes some form out or has the sawyers submit to him each evening the result of the day's work, as more or less of the work done by the sawyers is piece work. Bear in mind that our plant as compared with most others is a small one, and it is not so necessary to have a 'system' in the workings of our mill as it is in the larger ones, as our foreman or superintendent can usually keep track of these things himself.

"I am sorry that I am not able to give you any information along these lines that would be of value to you or to the trade in general. We have given considerable thought to this subject, but have never been able to determine upon a plan that we thought would be adaptable to our purpose without entailing too much expense to justify us in adopting it."

Valuable Advice to Retailers

President of the Indiana Retailers Makes Some Good Suggestions

The Retail Lumber Dealers' Association of Indiana recently commenced the publication of a monthly bulletin, and to the second number, the president of the association, E. J. McErlain, contributes a letter addressed particularly to members of his own organization, but which contains suggestions and advice of value to all retail lumbermen. We take pleasure in reproducing it as follows:

"I believe the Bulletin affords an excellent medium for the members of the Retail Lumber Dealers' Association of Indiana to study and understand the business. A lively interest and a hearty co-operation will undoubtedly redound to the mutual advantage of all concerned.

"Keen competition and the increased costs of doing business makes it imperative that the dealer avail himself of the most up-to-date business methods. It stands to reason that one man cannot know it all. Out of the experiences of the many may come wisdom that will be valuable to you. A man's success depends very largely upon the judgment and enterprise that he puts forth. You cannot afford to ignore a means of increasing your business efficiency and consequently your success.

"You will bear with me if I give a few business principles that bring good returns. The first duty of the retail dealer is to give service to his customer. Sell him good goods and give him a square deal. Dependable promises and business courtesy are worth while. Go out of your way to give a customer what he wants and you have gained his trade and better still his friendship. If at any time you find yourself puzzled how to meet the requirements of your trade, remember that you can secure this information through the Bulletin.

"A second valuable bit of advice is to be zealous in collections. It means work and it spells success.

"Last of all, be progressive. Keep abreast of the times. Don't neglect this golden opportunity through indifference.

"Our association has been productive of much good. Dealers have learned much about conducting their business. They have learned how to avoid the sink holes and how to stop the holes. To-day the retail dealers would not consider for one minute the abandonment of the association. This is proof of the underlying good and open helpfulness of this organization.

"There are some dealers who have not as yet comprehended the advantages that would come to them by becoming members of this association. There are none so blind as those who will not see. Or is it a case of being penny wise and pound foolish. There is no way to bring this element into the organization except the light or reason. It seems self evident that a man who is in business to succeed would gladly accept every honorable means to advance his interests and welfare.

"To the dealer who is not a member, we invite your careful consideration of this matter and extend to you a cordial invitation to come with us. We want you, but you need us far more.

"As president of the association I wish to say that I am well pleased with the progress that has been made this year. Members are showing great interest and the spirit of co-operation prevails. Let the good work go on."

Cultivate the Contractors

Establishing and maintaining equitable and friendly relations with contractors and carpenters, especially in the rural districts, is a problem which is and will continue to test the ingenuity of the retail lumbermen, says the Mississippi Valley Lumberman. Because of the varying conditions in each locality and the large element of personality involved no set policy or fixed rule can apply. Unfortunately, these so-called contractors and builders are not, as a rule, high class business men, while many of them are not even ordinary mechanics. In very many cases these un-skilled artisans endeavored to shift the responsibilty for errors of commission or omission upon the retail lumberman.

When based upon equitable relations, there are many ways in which the contractor, builder or even the carpenter, and the retail lumberman can co-operate to their mutual advantage. We have known some instances where the local lumber dealer has considered it good business to give a commission or a gratuity to the contractor who is building some structure in which the dealer was furnishing the material. Such a policy has almost invariably proven to be detrimental to the interests of the lumbermen. Nothing so thoroughly arouses the indignation of the average individual as to find out that some person has been able to secure a gratuity simply because of the patronage he has given some merchant. It is almost impossible for a business man in a small community to have any trade secrets without his neighbors very soon becoming familiar with the details. The class of individuals who accept a gratuitous commission under such circumstances are not of a high character either intellectually or morally, and it is a foregone conclusion that in a short time they will be confiding their good fortune to some intimate friend, who would in turn spread the news broadcast, with the result that the local lumberman finds that he has prejudiced his interests in some case irreparably.

The catalog houses and other concerns, either large or small, who seek to sell building material direct to the consumer, seem to consider the contractor, carpenter or builder in the rural districts as an especially favorable medium through whom to secure the trade of the consumer. Many of these local contractors are friendly to the retail lumbermen and turn over to them such correspondences as they received from these concerns. Others, however, either openly or secretly actively co-operated with these competitors of the local retail lumbermen.

In some instances these contractors are now resorting to very questionable, if not dishonest methods to further their own interests. An instance of this kind was called to our attention just recently. A contractor, who is well known to the retail lumberman, submitted a bill of lumber for an estimate, the material to be used in the construction of a substantial residence for a prominent citizen. The dealer at the time was impressed with the fact that the material asked for was of much better quality than usually called for and that the quantity was in excess of the amount required for the size of the structure. He mentioned this fact to the contractor, who, however, insisted that he wanted simply a rough estimate what the material would cost. With the tacit understanding that he would be given an opportunity later to revise and go over the bill, the dealer named a lump sum price. Within a week or so a car of lumber and other building material was delivered at that station, taken away by the contractor, and used in the building of the residence. A salesman for a well-known lumber manufacturing company happened to be in town the day the car arrived, and he checked over the material carefully. Instead of being the high grade stock which the original estimate called for, it consisted almost exclusively of the very poorest stock which could possibly be used. A careful investigation by the retail lumberman disclosed the fact that this contractor, after securing his figures for the material, had gone to the prospective builder and offered to construct the building for a very small sum in excess of the cost of the lumber and building material, as estimated by the local lumberman.

The retail lumberman was so indignant and incensed at the trickery and deception which had been practiced that he proceeded to retaliate against the contractor in a most effective manner. A contractor and builder who thoroughly understood his business was imported from a neighboring city, and the local lumberman has been erecting numerous barns, houses or any other structures in that territory. This very effectually put the dishonest contractor out of business and he now is trying to injure the business of the retail lumberman by acting as agent for a catalog house and soliciting orders for all kinds of building material to be shipped direct to the consumer.

Naturally, there is a very animated contest carried on in that locality. While up to the present time the local lumberman has been able to more than hold his own, all parties involved are contributing very liberally of their time and resources without any reasonable compensation. This incident teaches the moral that every dealer should be very careful about giving to any middleman, off-hand quotations, especially on material which is not suitable for the structure proposed or to the advantage of the builder to utilize. It would be a part of wisdom, too, in our judgment, for the retail lumberman to get in touch with the individual who is to pay for the lumber, and not take it for granted that simply because some contractor or carpenter asked for prices, that his interests were being looked after. The friendship of the contractor and carpenter is desirable. While cultivating their good will and friendship, however, the dealer will do well to keep thoroughly posted on all that is going on in the community and keep one eye on these contractors, builders and carpenters.

Preparing Core Stock for Veneers

The preparation of core stock for veneers is a job that has caused considerable discussion among veneer men. This is not because it is a difficult piece of work, but rather because every veneer man is constantly trying to find the best and cheapest method of doing it.

I have seen, as perhaps a good many others have, cabinet makers working on core stock with tooth planes fitting it to receive the glue, so as to hold veneer firmly over every inch of surface. There never has been any doubt in my mind that they prepared a good surface; but think of the expense.

I have tried out a way that has given the very best of results and want to pass it on. As a sander man I had an idea sometime ago that this veneer core stock could very well be put through the sander to good advantage and the idea proved correct.

I put No. 3 Garnet paper on the first or cutting drum, and lowered the other two drums so that they couldn't come in contact with the stock in going through the sander. I found there was no need of taking a real heavy cut, as the coarse paper on the hard cutting drum left the stock sufficiently rough for the glue to lay in the scratch marks. It is best to use the Garnet paper as there is no danger of burning the stock with it.

The dust brush should be raised up so that it will take off all of the dust and loosened sand before the stock leaves the machine. If this brushing is thoroughly done, users of this sanding method will have no trouble with their glueing.

Of course, the stock must all be of the same thickness before it goes to the sander, but that is up to the planers. If the sander is compelled to take anything but a light cut the sharp Garnet paper will be worn down so that it loses the effectiveness it should have for the purpose. One paper will last a long time if the matter of light cut is held to.

Many may already be using some such scheme as this, but whoever is not, once they have tried it out will not go back to the old style tooth plane method. I believe they will find it reduces the cost of the job 50 per cent. and does better work by far.—R. M. N. in Berlin Quality.

"Nordfarer"

The accompanying illustration gives an excellent idea of the size of the sailing vessel "Nordfarer," which came into the Miramichi River during the summer which has just passed. The "Nordfarer" was the largest sailing vessel that ever came into the Miramichi. She carried away no less than 2,342,000 superficial feet of spruce deals, scantlings and boards, valued at over $30,000 and consigned to Newport, Monmouthshire, Eng.

Mr. W. C. Oille, of Oille & McKeen, large wholesalers in lumber at the Tonawandas, and a native of Canada, will in all probability be the new postmaster to be appointed at North Tonawanda by President-elect Woodrow Wilson. Mr. Oille has for several years been the Democratic leader in North Tonawanda.

Following the Changes in the Wholesale Market

With the rise in the wholesale prices this fall, comes that which is dreaded by all retail lumbermen; the necessity for an advance in the prices to the consumer, for it means to him an almost endless tale of the causes and the reasons for his charging more for a certain item than he did a month ago, perhaps for the same article. As far back as I had anything to do with running a retail yard the price of lumber has always been too high with the farmers. During the periods when they went down, the farmer had naught to say in commendation, but assumed that they might be lower and still enrich the lumberman. And when prices have gone up again, it was the "trust" that was the cause of it.

It used to be amusing to me to hear even good sensible men talk of the inevitable rise in the prices of everything they bought when their farm produce was bringing them better returns in the market. They seemed to think that lumbermen, especially when they saw the prices of grain advancing, would raise their prices to correspond, and thus help to keep the profit from the farmer that he ought to have. It is curious how such fool notions will be entertained by otherwise sensible people, but the soil of prejudice is harder to deal with than a New England stone farm where it was once alleged they had to shoot the seed grain in with a musket.

But, what can we expect, when we consider that the opinions of the present day farmer are formed from what he reads in the numerous farm papers that are controlled by the great mail order concerns in this country and the millions of catalogs they send broadcast over the land? From the time you first raised your prices this year, you have had a continual fight on your hands in combating this prejudice of the farmer against the lumbermen. A good many dealers, no doubt, have been more or less timid in advancing their prices at the same time they went up in the wholesale market. They have let their old stock, bought at lower prices, absorb that which came in later on the advance and still kept on selling at the old prices. But the time came when they could do this no longer, and they were forced to spring the surprise on their customers that they should have done a month or so before. They have in this way lost just that much extra profit they could have had as well as not. Considerable stuff will have to be sold out of the yards as extras of bills that were sold before the last advance in the market, and this will have to be sold at the prevailing prices when the bill was sold; not necessarily so, of course, but most dealers will do it to avoid the "kicking" customer who would object to have prices raised on him before he got through his job.

City Retailers Follow the Market

I find that the retailers here are very much more responsive to the changes in the market prices than dealers in the country. As soon as any advance becomes general, a new yard list is at once issued to the trade, and likewise also, where there is a general drop in prices. There is not the selling at the same old list for very long when the prices go down, as is the practice with a good many dealers in the country. And another thing they do, which the country dealers would do well to follow, is the following of the different prices for the different sizes and lengths of dimension as they are shown on the wholesale list, as for instance, the 16-foot lengths of nearly all sizes of piece stuff. They don't sell 2 x 4, 12, 14 and 16 feet all at the same price as is common in many country yards. If a customer wants all 16-foot lengths in anything, he is told that it will cost him extra. In almost every instance he will change his mind and conclude he can get along with the shorter lengths. I've often thought how much more I could have made if I had followed the same practice when running a country yard.

There is no good reason why country dealers cannot do this as well as the city dealers. It is not a question of one getting the advantage of the other, for all are in the same boat, so to speak. Each has to pay the same distinctive prices for his stock that the other does, and it is therefore only a matter of breaking away from the old custom of a blanket price for several lengths that cost them different prices. With the close competition that is now pressing the retailer it behooves him to take advantage of every little thing that he is legitimately entitled to. As we buy, so should we sell, as regarding the things I have spoken of, and by so doing, the country dealer can make a few more dollars in the aggregate, and besides keep his stock in a better balanced condition at all times.

I know some won't agree with me about a country yard following the fluctuations of the wholesale market, and the argument against it is based on the supposition of the ignorance of the buying public concerning the wholesale prices of lumber. This was largely true years ago, but the avenues of information are far more numerous now than they were in those times. And the dealer who maintains practically a stereotyped price list through all the seasons of the year, is running a good chance of getting a hard "jolt" when a comparison of prices is shown him by some well informed party who is figuring on building. I am aware how strong the temptation is to keep on selling at the same old list when prices have gone down in the market. But, as I say, this naturally gives rise to dissatisfaction and often to more serious action on the part of those who are buyers of lumber.

A "Standpatter" On Prices

There are too many eyes open now to make it safe for the dealer to have the one price the year round, as we once could have. It was always my policy to make out a price list in the latter part of the winter that I thought would do for the rest of the year, sometimes, of course, I had to change it in the fall if the wholesale went up, but I never thought of lowering them unless I was compelled to by competition. I was a real sure-enough "standpatter" on the question of stability in the yard list, and many an inquiring mind have I answered with "prices are about the same." In later years though, I changed somewhat in this policy, and when I saw the probability of prices going up in the market I would try to stimulate building by telling my trade they had better buy before the rise. On the whole, I have found this to be the better policy, because it showed I had a regard for their interests and was trying to do them a favor. In fact, I think what success I had as a retailer, was largely due to the personal interest I took in the general welfare of the individuals of may trade. I was educated up to doing this through finding out that, even as a business proposition only, it paid better than to cut prices to get their business.

The law of supply and demand we know to be the primary cause of lumber going up in the wholesale market, but, to my knowledge, it has been in operation so far as the retail yards are concerned. It don't seem to work in a local way, for, no matter if half the dunnage is bare in a yard, the prices continue to be the same. I have seen the time when, for several weeks I had the only supply of shingles in the town, and still I knew that if I advanced the prices, as I was entitled to do, there would have been a cry of complaint and charges of extortion, that would no doubt have injured my general trade. Yet, no one gave me any credit for sacrificing what I could have gotten in a perfectly legitimate way.

Lumber and coal yards seem to be considered by the public as in a class by themselves, and different from other lines of business that are continually affected by this law of supply and demand. I suppose this is the principal reason for the stereotyped character of the country yard price lists in general. There are many queer things about the retail lumber business that really do put it in a class by itself. Dealers do things in a way that those in other lines could not do, and keep out of the sheriff's hands, and still for all that, it has its compensations. I have at times thought that perhaps the government in its efforts to fasten a "trust" on the lumbermen of the country was finding its principal difficulty in this feature of the distinctive nature of the lumber business, and probably this fact is one of the reasons why the case has been dragging along the time it has. It is difficult for buyers to realize that our whole business system has been built up on the basis of the legitimate protection of the retailer by the producing manufacturer.

Railroad Rules Enforced

This is the time of year, more than any other, when the rules of the railroads regarding demurrage become a matter of more than ordinary concern to the lumber dealer. The consumer is rushing him for stock and he is rushing the mill men to fill his orders. And they in turn are rushing the railroads for cars. In order to fill these requirements, the railroads are hammering away at the dealers and other retailers, to unload them at once or pay the penalty according to their rules made and provided for these emergencies. So you see, the rush comes all back again to the retailer and makes him the key to the whole complicated problem. Of course, there are other things, such as inadequate facilities at the various railroad terminals, that enter into the problem, but, in the main, the question of keeping the supply of cars moving to meet the demand depends largely on the promptness with which they are unloaded at the point of destination. Engaged as we are, with our own troubles in unloading them, we are not apt to realize fully our share in the responsibility for the unequal distribution of cars and the alleviation of their shortage at the sources of stock supply.

I have put it in this way—and I think fairly—that those who read it may have their attention drawn to a phase of the question that naturally they are blinded to, because of their own particular interests that distract their attention from it. I know the assumption is, that the retailers are just as much concerned about the getting their orders delivered as the transportation companies are of getting the cars to their destination, but when once they are set in on the side track, it is natural for them to lose interest and consideration for the needs of others, who are waiting for their orders to be filled as they have been. The railroads know this, and therefore, in order to make the dealer who has just got in his car, realize his obligation to others, they say to him, "you must unload that car in a certain time according to our rules, or pay us the stipulated charge for the use of the car." The dealer says to Mr. Railroad, I'll unload that car as quickly

as I can, but remember, old man, you have been a week longer than you should have in delivering it to me and therefore you should be a little easy on me if I don't happen to get it unloaded in the time you say I must." The railroad man, however, is inexorable in his demands for the compliance with the rule, because of the same nature of the necessity which is pressing in on him from every quarter of the business world, and as, "needs must when the devil drives" his only recourse is to press in turn the consignee who has the car for unloading. All movements in human action are made in the same way. One thing is pressing behind another, and that pushes the other in front and so on in the whole moving drama on the stage of life.

He Hates to Pay It

There is probably no more aggravating thing to a retailer than the matter of demurrage when it comes to him in the acute form of a bill for payment and he pays for nothing else with so much ill grace and so grudgingly. To the average dealer it is a piece of extortion that he bitterly resents because of its apparent unfairness to him, as perhaps he has been annoyed and suffered loss from the car that has been long delayed on the road. Then another thing. When several cars are set in on him at the same time, it looks absurd and totally unreasonable to expect him to get them empty in the time thus arbitrarily allotted him. As a rule, the dealers are only too glad to get the stuff at such times as these, and they waste no time in getting at work on the car containing the items they are most in need of but where they have to haul it by team into the yard, they are doing pretty well if they unload one of the big carloads in a day. And if busy in the yard, and depending only on their own teams, they have got to work late into the night to do it.

I have known of instances where the lumber was taken from the car and piled down by the side of the track to be afterwards hauled to the yard. I did this myself, as one of the instances, but only once. I hired some green hands to do it and I lost more from breakage than the demurrage would have been. There is considerable risk in doing this when the lumber is mostly of the upper grades, because of the liability of damage from rain, but it won't hurt a car of timber or heavy piece stuff. It frequently happens that the train crew are not particular in setting a car where the dealer can get at it to unload. In that case, he may be paid to wait till the next day to have it changed. It "riles" him therefore to have this time charged against him. Of course, the agent is not going to report it because it is his duty to see that cars are placed conveniently for their prompt unloading. To avoid this, I used to send a man or go myself, and see that no such mistake was made. Station agents have a good deal to do in the busy days of the fall months and they can't look after the placing of cars as closely as at other times. The grain men are very insistent for "empties" in these times, and they are often responsible for some of the "prods" that are given the lumbermen to hurry up and let them have that car. Some wrangling is apt to be indulged in when one or more cars of lumber get on the grain stock. Frequently it is the case that a partly unloaded car of lumber will be shoved in a position when nothing more can be done till the next train pulls out the loaded grain cars. Everything these days is subservient to the necessity of getting the grain on wheels and rolled away to its destination, and all other interests have to suffer in consequence. But this is a part or the penalty which the dealer has to pay, who has waited too long before ordering his stock.

When the Cars Are Bunched

One great difficulty the dealer has to contend with when several cars are "bunched" on him is the hiring of sufficient extra help to get them unloaded in time to avoid the demurrage. This used to be one of my greatest worries in the rush times and many a time have I worked all night unloading with the men I could pick up and those of my own, in order to get the stuff out that was needed for the next day's business. Of course I had to pay extra wages, but I've found, when confronted with such difficulties, that the best way is to go right through them, no matter what the cost. It is just as economical to hire four or five men to do one day's work as it is one man for four or five days' work. I don't know but it is the cheapest, in the case when you have several loaded cars on track that you badly need. Go at it and bid up for help you need and put two shifts of men on them till they are empty. This is often done here in the city where sometimes a dozen cars are set in one yard at the same time. This is where I learned the value of having an extra wagon when unloading in a hurry. Two men at the car will keep another two men busy unloading at the yard and in this way much time is saved. The extra wagon also comes in mighty handy at other times, when you are busy delivering about town, and in loading up for going out the first thing in the morning.

The great trouble with all these small country towns is that they are not fixed for handling the ordinary rush of trade that comes in the fall months. The average lumber yard has the same equqipment of men and teams that it has at other times of the year, and they are called on to do—as often happens—two months' work in one month, and all this until snow flies. Consequently, some part of the work has to suffer more or less as the case may be, and no matter what else intervenes the process of making sales must not be interfered with. Loaded cars on track must stay there till time can be had to unload them. Overworked managers get calloused concerning them, and the result is that hundreds of cars are tied up that are badly needed elsewhere. If it were not for the charge of demurrage it would be a good deal worse than it is for those needing the "empties." We penalize—or try to—those to whom we give credit, by charging them interest on the account after 30 or 60 days. This is done to spur them up to pay us promptly when due. They have got the money we need in our business. Likewise, when we have the loaded cars sent in to us the railroads give us a certain time in which to empty them and failing to do it, is it unreasonable for them to charge for the continued use of their property?—C. H. Ketridge, in the Mississippi Valley Lumberman.

B. C. and West Coast Lumber Shipments

Shipments of forest products from British Columbia to the Yukon Territory from January 1st to June 30, 1912, amounted to 48,180 ft.

Foreign shipments were as follows:—

Australia	9,604,352	737,490	532,245
West Coast—South America	3,077,627	.....	.....
Mexico	280,833	.....	.....
Japan	1,584,834	.....	.....
U. K. and Continent	5,464,474	.....	.....
Total	20,012,120	737,490	532,245

Total shipments from the Pacific Coast were as follows:—

British Columbia	20,012,120	737,490	532,245
Washington	120,839,071	1,880,254	773,195
Oregon	64,972,813	466,840	293,145
Total	205,824,004	3,084,584	1,598,585
Total Domestic	640,827,673	18,828,049	29,766
Total Foreign	205,824,004	3,084,584	1,598,585
Total	846,651,677	21,912,633	1,628,351

Lumber—feet	846,651,677
Lath—feet	21,912,633
Pickets—feet	1,628,351
Grand Total	870,192,661
Total Domestic—Lumber, Lath and Pickets—feet	659,685,488
Total Foreign—Lumber, Lath and Pickets—feet	210,507,173
Grand Total	870,192,661

Timber Culled at Quebec

We publish below a statement which has just been received at this office from the Supervisor of Cullers,' Quebec, giving the number of feet of timber, masts, bowsprits, spars, staves, etc., measured and culled to the 6th of November, 1912, and comparative figures for 1910 and 1911.

	1910 Cubic Feet	1911 Cubic Feet	1912 Cubic Feet
Waney White Pine	479,280	757,840	1,055,200
White Pine	10,720	10,680	1,760
Red Pine	21,920	27,720	12,200
Oak	256,680	92,080	109,400
Elm	246,920	221,680	276,640
Ash	1,360	120	520
Basswood			
Butternut			
Tamarac			
Birch and Maple	43,120	62,320	38,640

From what we hear, Quebec deals and timber—in fact, all kinds of wood for shipment—will prove a record, so far as shortness of stocks are concerned, says the Timber Trades Journal of London, Eng. While the higher class pine deals are increasing in value daily, there is a demand springing up, both at home and abroad, for the lower qualities, and it now appears certain that very little wood will be sent over on consignment, even if freight room could be obtained. The scarcity of tonnage and the lowness of stocks will tend to keep consignments to the smallest possible limit, and as we are so near the end of the season, those who have stocks of Quebec goods of any description should hold out for full prices. Spruce deals have been sold recently at higher prices than we can remember; we understand that £11 c.i.f. has been paid for unsorted 3 x 9.

Care of Small Band Saws

In small plants, where there is no regular filer, and where it is up to the operator to look after his saws, it is quite a task to take care of his saws, especially if he has not had any experience in that line, says R. B. in the Wood-Worker of Indianapolis.

Judged upon general principles, such as are common to all saws, there is a probability of the band saw supplanting every other method. Consisting of a thinner blade than can otherwise be used, capable of any degree of tension, and moving at a higher speed than it is possible to run other saws, its advantages are too obvious to warrant any other conclusion. Besides, it cuts squarely through the wood, which is of very important advantage, and is operated by rotary shafts and wheels running at a moderate speed.

The fear of breaking blades, or the inability to manufacture them, seems to have, for forty years or more, deterred operators from using band saws. This trouble has been overcome, and band saws of good quality will do as much cutting as other saws, measured by their value or cost. Joining the blades, formerly regarded as the next thing to impossible, has become so simple a matter as to be performed in every shop, and almost by any person.

The first thing in order is the blades. They should have a high spring temper; if harder, they become more liable to fracture, are difficult to sharpen, and will be broken in setting. A saw that has a good, lively temper is comparatively worthless. It is quite impossible, after a saw is finished, to tell whether it is properly tempered throughout; if 1-in., even, of its length has not been tempered, or is drawn by polishing or grinding, it is as bad as though the whole saw were wrong, for such spots cannot be found; and, if they were found, there is no remedy but to cut them out. We have to trust mainly to the skill and good faith of the sawmakers, and should patronize those of known skill.

In selecting saws, a good plan is to test the temper. If the saw is not joined, roll up the ends and see if it will spring back straight or remain bent. If it springs back nearly to its first shape, the temper is good. The texture or grain of the steel, which is the only clue to quality, can be determined by breaking a short piece from the end of a blade. By unrolling the blade on the floor it can be tested as to straightness. The ends, if laid together, will show if it is parallel and of the same width throughout.

The processes of joining now in use can be divided into brazing and soldering, the distinction relating mainly to how the joining is done, rather than to any difference in the processes. In what is termed soldering, the melting or heating is effected with hot irons; in brazing, the saw itself is put into the fire.

Brass, spelter, german silver and other alloys can be used for joining, any of which makes a joint which, if well made, will be as strong as other parts of the blade; that is, will stand an equal tension, for the tendency to fracture is greatest alongside the joints, where the union takes place between the tempered steel and the portion that is annealed in making the joint.

For solder joints, silver solder is convenient; it is strong, and melts at a low heat. The most convenient form is to have it rolled in thin strips, so that pieces the size of the lap can be cut off and laid between. To make joints of this kind there is required a strong, heavy pair of wrought iron tongs and some kind of a frame to hold the saw straight, leaving the joint free at the ends, to be clasped with the tongs.

For soldering the smaller blades the saw should be scarfed or tapered at the ends for a length corresponding to one or two teeth, as the pitch may determine. This scarfing must be done true and level, or the joint will not be a close one. The joint should be cleaned with acid, to remove all grease, the solder placed between, and the saw clasped with the tongs, which should have a full red heat. As soon as the solder runs, the tongs should be removed and a wet sponge or cloth applied, to restore the temper in part. The joint can then be filed parallel by using a wire gage or a pair of calipers to determine the thickness, being careful to file the proper amount from each side. This last is the most difficult part and requires great care to have the saw parallel and straight, without making it thinner at the joint than at other places.

One of the main points in operating band saws is to avoid bending the blades edgewise, which is more easily and frequently done than would be imagined. The wheels require to be so adjusted that the saw will only touch, and not bear against the back guides when not at work; and as different saws and different positions of the guides as to height will vary this back thrust, it requires constant attention.

The amount of back pressure is easily determined by placing a piece of wood behind the saw while it is running, and pressing it forward and noting the amount of force required, then setting the wheels until it bears lightly on the back. This edge strain, as we call it, is generally provided for by an adjustment of the axis of the top wheel, which every machine should have. The different forms of teeth, the pitch, angle, and manner of setting, are questions of much importance with large saws that run with power feed, but for scroll sawing, with narrow blades generally, the matter of teeth has not such importance, a fact that is sufficiently proved by most of both opinion and practice met with.

In respect to sawing logs with band saws, the present limits will not admit of going into the subject, which is a wide one.

A Plea for Sharp Tools

By Herbert

One of the hardest lessons for some men to learn is to keep their working tools in good trim. No matter how often the importance of this subject is impressed upon their minds, somehow or other they still continue as lax as ever, much to their own disadvantage and the detriment of the work they turn out, says the Wood-Worker of Indianapolis. Why they persist in being so slack is hard to comprehend, unless it be due to their having fallen into a slovenly habit, from which it is difficult to break away. Whatever the true reason may be, this matter is of sufficient importance to merit serious attention on the part of every skilled workman. Neglect to do so lays him open to severe criticism.

Tools well sharpened do better and cleaner work. This statement applies to every kind of a tool, whether a saw, a turning chisel, or the knife of a planer. A keen, sharp edge always does cleaner work than a dull one. The fact of the matter is, if the edge lack sharpness, it does not cut at all, but merely scrapes the wood. This is a result to be avoided as far as possible, and, indeed, may be obviated by following the hints here suggested. I regret to say that more than once have I seen planks coming out of a planer not much smoother than before they passed through. I have seen pieces taken out of the lathe, supposed to be finished turning, the surface of which was so rough as to be a disgrace to any man pretending to be a skilled turner. And all this due to a lack of keeping a proper edge on the tools in use. Surely it would have taken but few moments to attend to the sharpening, while the results would have proved much more satisfactory.

The same sensible advice is applicable to the saw, whether band or circular. To insure the best results in the way of a clean, smooth cut, nothing is so essential as sharp teeth. They never scrape or burn their way through the wood, as does a dull saw, leaving behind either a frayed or singed surface. Many a time have I seen a saw virtually made to burn its way through a piece of lumber, with smoke rising in so dense a cloud as to attract general attention. All this is unnecessary and open to severe censure. There is no need of such a thing, when a little application of the file now and then will do away with it altogether. A sharp tooth always cuts, and cuts cleanly, while a dull one scrapes and burns the wood.

Besides, a keen-edged tool does quicker work. As a rule, it means the saving of much precious time. Other things being equal, the man with a sharp tool is able to accomplish anywhere from one-third to one-half more work than the other fellow who is deficient in this regard. In fact, the main reason why some mechanics are accounted superior to others, by being able to produce more and better work, is their habit of always keeping their tools in good working order. The real secret of many a workman's success is due not altogether to superior skill or closer application, but fully as much to the quality just mentioned. He is considered a quick worker because he appreciates the real value of a sharp blade or a well-filed saw.

A sharp edge means, also, far less strain on the tool itself. Have you ever watched a piece of lumber pass through a planer when the knives were dull? If you have, you must have observed with what strained effort and increased noise the machine worked. It seemed like an uphill effort, as indeed it was. Grudgingly, so to speak, does the machine do its task. Have you ever noticed a man using a dull band saw? If this privilege has been yours, you could not fail to be impressed with the fact that the workman, in feeding the saw, had fairly to push the wood against the teeth, while the saw itself, acting as if reluctant to work so hard, showed an erratic disposition to run away from the cutting line. Indeed, your scribe is inclined to the belief that this unnatural strain put upon the saw blade is often the direct cause of breakage. A sharp knife or a well-filed saw passes through a piece of wood as easily as through cheese; there is no strained effort and the machine works with a will.

For the reasons just advanced, it behooves every wood-worker to appreciate more fully the great value of those dumb instruments so helpful to him in his daily toil. He ought to treat them well, and they, in return, will gladly repay him for his trouble. Never let him for a moment think that time spent at the oilstone or grindstone, or in handling the file, is wasted. Nothing of the sort. These apparently trivial accessories have a most important part to play in the economy of true workmanship, and the sooner this lesson is learned the better it will be.

Planing Mill Management

A pertinent question for mill owners is whether their men are working with interest and loyalty, or giving as much attention to their work, when the manager is away, as when he is present. Do they use the necessary judgment in their work to make it profitable? The question is simple, but upon the answer depends in a great measure the success of the company.

To these questions some would reply: "I hire my men without any responsibility, pay them the price agreed upon, and insist on getting the work done the way I want it. I am personally responsible and in charge of what is done here, and it is only right to have everything carried out according to my personal ideas."

It seems quite reasonable to hold this opinion. It is the shortest way to end investigations and discussions and the responsibility is easily located if something goes wrong. But there is no greater cause of lack of that personal interest which should exist in each individual employed in the various branches of a manufacturing concern.

The Workman and the Employer

As a rule our best workmen are real strangers to us. They are not tied by friendships nor by relationship. They accept a share of our labor or burden, and carry it to its destination for a remuneration which becomes their daily support. It is as important for the employee to hold his position as it is for the employer to depend on the labor and loyalty of his men.

What could be termed the "perfect workman"? We might expect to find perfection in a workman who would never make a mistake and do to a nicety what he agrees to do. He may do the whole of that and be of no importance, when we consider the real requirements of factory help.

To make a good workman in the shop, an employee must have natural aptitude, steady habits and mechanical ingenuity. He must expect a profitable future in the trade, and think so much of the older employees' jobs as to envy their situation. He must be ready to make daily sacrifices to acquire knowledge in the hope that some day he may be able to supply a little brain work instead of labor, and get better remuneration, thus reaching the point called success.

The Employer as Seen by the Workman

What reputation should a mill have to create such a feeling in a a stranger's mind? When a man looks for a job: (If he is not a globe trotter), he inquires about the standing of the firm; if there is any future in the business and if an employee who has spent a few years of his time there will have a better reputation. Relying on favorable conditions, the man gets a situation, but he will still investigate and size up the place from its system and from gossip. If he hears old employees talk dissatisfaction or criticize the management and their salaries, the stranger is ready to move on to another factory.

If such conditions exist in a factory remedy them at once. Weed out criticism, make the condition such that a man will believe he is being as well treated as he would be in any other place, and that the class of work he is doing is equal to the best. Let him feel that if he succeeds in learning the trade in this factory he will be in a position to compete with workmen in any similar factory in existence.

When there is much good said about the factory's standing and management, the advantage of being employed with a progressive firm will soon create an ambition in the employee's mind. With proper factory rules we can soon get employers under a system that will show clearly what each man is doing in every hour of the day. If the men know that proper records are made of their doings and that the good work they turn out will bring them credit, they will acquire careful habits of work

Helping Employees to Improve

What else can be done to render the men careful? There are men who are so careless that they can spoil enough work to cut off the profit of a whole department. The best remedy for this disease is to record all defective work done by the men. Put down the date, the operation, the value of the stock and the amount lost. Make a regular charge against that man. If we find that the charge is coming too often on the same account, advise him to change his trade.

When the time comes to consider an increase of salary, the man who has a few charges against him is not so proud of his ability. On the other hand, if you find that a man is always making good work, encourage him. This is the right man to encourage and to help.

There are some employees who are really not responsible for accidents or bad work. They never cause accidents themselves, as they are not in a position to, but they are very unfortunate. There are always in the corner where an accident will happen. They don't make the trouble but they cannot prevent it. Such men are not profitable around machines of any kind. It is dangerous for the man and not profitable for the firm.

When it is understood that by the system carried out every individual has to account for his good or defective work, his steady attendance on duty, as well as the maintenance of his tools, an employee will soon find that he has to do some thinking to get around and that it is the mechanical skill that counts. He will cultivate his mind and develop his ingenuity.

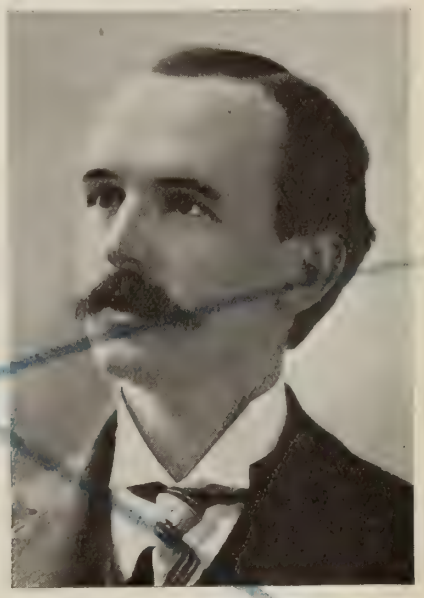
If the men find that practical knowledge gets them jobs, and that there are good chances for improvement in their position, and if you help them along by filtering into their minds an appreciation of the fact that an employee is supposed to possess aptitude and skill to make his services indispensible, you will do much for your employees and for yourself.

Changes in S. A. Woods Machine Company

Owing to ill health, Mr. Frank F. Woods, of S. A. Woods Machine Company, Boston, Mass., has retired as president and treasurer of the company. On account of Mr. Woods' retirement, a change has taken place in the personnel of the company, Mr. H. C. Dodge becoming president and Mr. C. W. H. Blood vice-president and treasurer. Mr. Dodge also retains his position as secretary. Mr. Dodge and Mr. Blood have acquired the stock formerly held by Mr. S. A. Woods. The mechanical and executive ends of this business will remain practically the same as formerly; in other words, the high standard of machine construction, in the way of workmanship, quality and capacity, will be maintained.

Mr. Dodge has been connected with the Woods Company for about ten years. Since leaving Harvard College, he has devoted all his time to studying the lumber and wood-working business. During his connection with the S. A. Woods Co. he has had charge

Mr. H. C. Dodge



Mr. C. W. H. Blood

at different times of their business in several States. For the past two years he has been general sales manager and has also held the office of secretary for the last year. Mr. Dodge is well known in the lumber trade and has done much towards the revolution which has taken place in the dressing of lumber in all parts of the world.

Mr. Blood has spent about twenty-one years in the company as head designer and engineer. His mechanical training was obtained at Cornell University from which he graduated in 1892. Mr. Blood has a fine record as an inventor, the government having issued to him no less than forty patents covering wood-working and planing mill machinery. During his connection with the company he has personally supervised the designing and construction of every machine which the S. A. Woods Company has put upon the market.

The S. A. Woods Machine Co. was established in 1854 and incorporated in 1873.

The Niagara White Pine Association, which includes all the prominent local dealers and a few Buffalo firms, is again holding regular monthly session for the discussion of matters pertaining to the trade. Monthly dinners have been held at the Hotel Sheldon, followed by informal after dinner discussions.

In a government report on the wood-using industries of Michigan, is stated that 50,000 board feet of apple wood is used annually for handles. "The only wood in the whole industry (handle) costing an average of $50 a thousand feet was apple, obtained in old orchards where the trees are no longer profitable for fruit. Apple wood is peculiarly fitted for saw handles and most of it is put to that use. Black cherry is employed for the same purpose, but in Michigan it costs $14 a thousand feet board measure and is much cheaper than apple wood."

Electrical Notes for Woodworkers

Although electricity has been introduced as the motive power in large numbers of sawmills and wood-working factories during recent years, there is still a great uncertainty as to what power is really required to run certain machines. We cannot wonder at this unfortunate state of affairs when we find that we have no definite basis to work from. There is too much guess work to be done before one can decide. I have before me an "Electrical Pocket-book," which contains a table of the horse-power required for various machines. Here are a few examples:—

34 in. bandsaw .. .. .. requires 0.96 h.p.
35 in. circular saw .. .. " 5.64 "
14½ in. x 4¾ in. fourcutter " 6.91 "

If we were to take a 34 in. bandsaw and fix a 1 h.p. motor to it, it may drive it slowly, providing the motor is of good make and has a 100 per cent. overload up its sleeve. But do not attempt to cut with it, or it will be "Good-bye, motor." I have also a well-known machinery maker's catalogue before me, which states that in their experience—

a 30 in. to 40 in. circular saw requires 8 to 12 h.p.
a 12 in. x 5 in. fourcutter saw requires 15 to 25 h.p.

Now, where are we? Is it to be wondered that there are instances of burnt-out motors and dissatisfied purchasers when we have such conflicting evidence laid down for our guidance? This is what really does happen in the mill when driving a heavy type 12 in. by 5 in. fourcutter (by W. Haigh & Company, Limited) (with a 20 brake-h.p. direct-current motor by E.C.C.). The motor is belted direct to countershaft. The cutter-blocks are speeded to 4,000 revs. per min.; to drive this machine light takes exactly 14 amps., or 7 2/3 h.p. Little is lost in vibration, as countershaft and machine are securely fixed on a solid concrete foundation. The belts are all in one piece, and as wide as pulleys will allow. When running hard oak (imported) the following readings were taken:—

10½	in.x1	in. on four sides at	12	feet per min.,	21	ampr.=	11.54 h.p.
7	in.x¾	in. "	24	"	22	" =	12.09 "
7	in.x¾	in. "	12	"	19	" =	10.44 "
6	in.x⅞	in. "	24	"	23	" =	12.64 "
1½	in.x1	in. "	12	"	18	" =	9.89 "
5	in.x1⅜	in. "	12	"	22	" =	12.09 "
14	in.x1¼	in. "	12	"	26	" =	14.28 "

Voltage at 410

The above figures may be useful to those who have had trouble with under-powered motors. One more point. Allow a bit beyond its fullest load. The motor in question takes 46 amps. to get speed up (starting light), that is, 25.28 h.p. Of course, it is only momentary, but it has to be allowed for just the same, unless you are looking for trouble. Don't place too much reliance on what the juice man may say. Figure it out and be on the safe side, then you will have no cause to grumble about electric motors.

"J. M. N." in Mill & Works Practice.

With the Woodworker

A prominent knife manufacturer was talking shop recently, and made the following remark: "When a man orders a knife, he should not only order a knife, but should order a knife to do a certain work."

This is good advice, and coming as it does from a man of considerable experience, it should be heeded by the stave man. The reason for this is plain. If an order is sent for a knife to do a certain work, the knife man will know the needs of the manufacturer and will give him a knife of the proper temper, etc.

Manufacturing knives is much more of a science than it ever was. For example, to cut the staves properly the knife must not only have a certain temper, but must be shaped on a true and accurate basis. The inside edge of a stave knife must be the exact segment of a 20-in. circle, or a circle described on a radius of 10 inches. If this varies in the least the knife will not do good work, making hard work for the cutter, and reducing the daily output to a large degree, thus increasing the cost of production.

It is more important to have a good stave knife to-day than ever before, because stave men are cutting timber that is harder to cut. Good clear logs used to be the rule, but to-day very nearly everything must be cut. Some stave men are going over ground to-day that had been cut over years ago and clearing up all the timber, the bad with the good, and it is mostly bad in some sections. Necessity has brought this about. Because of this condition, because of the rougher usage of stave knives, some stave men have been led to believe that stave knives are not made to-day as good as they used to be. This is a great mistake, for stave knives have to be made better than ever before.

It is easier to spoil or ruin a good knife than it is to spoil a poor one. Take it in the matter of razors, with which nearly every one has some practical experience. A razor made of poor steel and only a fairly good edge will stand a lot of rough usage; but a razor with a keen edge and made of a high quality of tempered steel is easily nicked and gotten out of good condition. The same holds true with reference to stave knives. The better the knife, the better work it will do, and the more care should be exercised in its use.

While it is essential to use a great deal of care in working the knife on the stave machine—especially instructing the machinist not to drop his wrench in the machine, but to keep it in the tool box, where it belongs when not in use, as a wrench won't work well on the edge of a good knife—it is in the grinding that most knives receive their rough usage. Take, for example, the speed at which knife grinders should be run when grinding stave knives. Of course, the speed will vary according to the kind or make of a wheel that is used; a hard wheel must be run slower than a soft one. Every manufacturer of wheels ought to supply the information of just the speed to use for his wheels, if he knows the kind of work to be done on them. Here is a chance for the operator to use a little common sense. Should the wheel be hard, run it a little slower, and if soft the speed can be increased. When run at the proper speed a wheel won't glaze, unless you get oil or grease on the surface.

It seems to be the impression among some that the faster you run a wheel the better it will cut the steel, but this is not the case. In fact, an emery wheel can be run at such a high speed that it will not cut at all. Not only will it not cut or sharpen the knife, but it will, if run at too high speed, burn the steel. The edge of knives burnt in this way will either turn over or break out. If after grinding the knife small cracks appear, it is certain that there is something wrong with the grinding. Either the wheel has been run too fast or the emery wheel dresser had not been used often enough. Frequent use of the dresser will save a lot of trouble with stave knives.

Some men in the grinding room, not familiar with the fine points of the proper speed for a knife grinder, will increase the speed of the wheel, thinking that in this way they can save time and sharpen the knife quicker. This is a false deduction, and as shown above will result in either burning the steel or in taking a considerably longer time to do the work of putting on a good edge, depending entirely upon how much the speed is increased, and if the speed is increased beyond a certain point, the wheel ceases to cut.

It is possible to crowd a grinder, and it should be avoided both from the standpoint of the grinder and the knife. Of course, if a wheel is run on too slow a speed it wears the wheel away too quickly with no gain to the knife. There is only one way to save time, labor, trouble and expense, and that is to run the wheel at the proper speed, as this will produce the best results for the knife as well as for the wheel, thereby reducing the expense of the grinding room.

If a disc wheel is being used on the grinder, it is necessary to increase the speed as the wheel wears down. If this is not done the wheel will appear to be soft in the centre; it will cut slow and waste both the wheel and the time of the man doing the grinding. Good stave knives and good knife grinders are like anything else—they must be well cared for and properly handled to produce the maximum of efficiency.—The Barrel & Box.

Fire Risk in Woodworking Plants

The great inflammability of materials and products in the woodworking plant, together with the inevitable collection of dust and sawdust liable to flash into flames from spontaneous combustion, or the careless use of matches, makes this type of property an extremely hazardous one from the fire point of view. Insurance rates of 8 per cent. per annum are not at all uncommon, and a rate as high as this is justified in many of these properties.

Elimination of fire risk is of extreme importance, as it would result not only in absence of danger from fire but a very material decrease in the cost of insurance. The placing of an engine and boiler room close to the plant increases the fire risk, particularly as inflammable dust is always carried from the plant into the engine room by the heavy belt and is liable to cause an explosive fire. Electric drive does away with this inflammable dust, and if induction motors are used also eliminates danger of sparking. The savings effected in insurance premiums alone is sometimes sufficient to warrant the erection, and electric equipment of new fireproof buildings.

This is so, however, only if the buildings are adequately protected by a complete system of automatic sprinklers. Recent figures on the cost of cheap wooden buildings with engine drive as compared with the best fireproof construction driven electrically and protected by automatic sprinklers, show that for a certain plant the cost of the former including all machinery will represent $28,800 as against $38,300 for the latter. The difference in insurance premiums, however, amounts to more than $2,000 a year in favor of the more expensive plant. It is seen that this difference is more than 20 per cent. dividend upon the difference in cost, and that the additional expenditure or first cost is more than justified on every ground.

Addition to Fay & Egan Matcher

A logical development in the economical manufacture of lumber recently brought out by J. A. Fay & Egan Co. of Cincinnati, is a horizontal band resaw built on the end of their highly successful 333 Matcher so that bevel siding, ceiling, ship lap, etc., may be matched double thick and then resawed without further handling.

By the old method this class of work was put through the matcher at 75 feet per minute, then trucked to the resaw and put through at the same rate. This required the service of two feeders and two off-bearers. By the new method the same work can be done at 200 feet per minute with one feeder and one off-bearer.

The resaw is entirely below the bed line of the matcher, eliminating dangerous overhead rigging entirely and making it very easy to change blades or take off blade when matcher only is to be used—in fact, this arrangement gives easy accessibility to the entire mechanism.

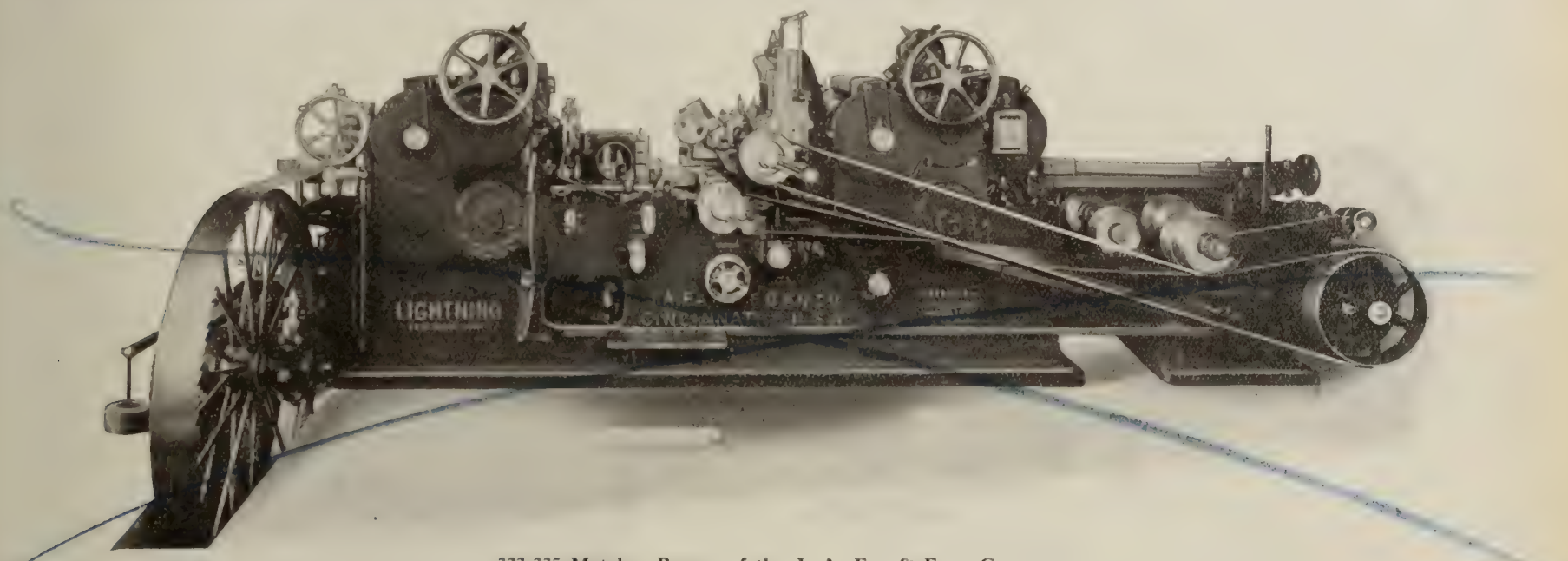
Compared with the old methods this new matcher-resaw will reduce manufacturing costs to a wonderfully low figure.

The installation can be used as a single unit, or the matcher may be used without the resaw.

This installation is exciting not a little comment where it is already running. Mill men who desire further details may obtain same upon application to J. A. Fay & Egan Co., 465-485 West Front street, Cincinnati, Ohio.

Modern Sanding

When you say "modern sanders," there is a vast difference in the makes, construction, adjustments and quality of work produced over the old type machines so commonly used a few years ago.



333-335 Matcher Resaw of the J. A. Fay & Egan Company

Up-to-date manufacturers are beginning to realize the vast strides with which the modern machines are overcoming the difficulties experienced in the past, and grasping the new ideas of to-day, thereby increasing their output as to quantity and quality, with a satisfied confidence in their product.

If a sceptical old timer could once visit a plant where modern machines are born and made, and see the solidity, simplicity, exactness and accurateness in the early and final stages of construction, and last of all, the testing of the qualities of the "giants" of the day, of whom so much is expected and must be realized, his scepticism must vanish and new-born astonishment take its place.

Now, the importance of the testing of these modern machines in their birth-place, can be realized when you consider they have to go to the mills of the country, and are to produce the results expected of them; no little detail is left unfinished, everything must be just right, carefulness in construction and alignment cannot be slighted, cylinders must run true and in balance, and the forty and one things that make the sander of to-day the realization of the strides of modern advancement.

When the new machine arrives at its destination, it will stand up to its work, and the thrill of expectancy is a fact. The adjustment of the cylinders simplified and convenient; new oscillation with take up for wear by end thrust; perfect alignment; and tension on springs in feed rolls; three changes of feed; operated at a moment's notice; stop, start, and reverse controlled by one lever; and the power hoist with hand-wheel for fine adjustments, are a few of the modern ideas not found on old-type machines.

Now, in the alignment of feed and pressure rolls, many of the difficulties of good sanding depends. A firm grasp of the pressure roll, thereby stopping the rotation, is enough pressure on the top chain of rolls for good work. Few operators pay enough attention to these facts, and continually adjust rolls to the disadvantage of good work. With an even tension on springs, and a perfect alignment, with a graduated adjustment of rolls, to allow for the cut which the sand paper takes off, on modern machines produces the best results. Much depends on the coverings of the cylinders, as a loose felt is a bad proposition. Sand-paper must be put on exact and careful to produce the best work. All oil wells and grease cups must do their duty. Bearing these pointers in mind and carefully operating an up-to-date sander with the adjustments and improvements possible to-day, you have a product unequalled and satisfied consumers of the production.

Sanding machines are built to-day to cover almost every condition called for in the sanding world, taking in material from 31-in. to 103-in. wide.

The endless bed sander—one of the modern achievements—with its enormous capacity on short stock, is filling a long felt want in wood-working plants handling short length material. The stock can be cut to the desired length, moulded and worked on any other machine before being presented to the sander, thus saving all labor formerly done, and delivering a piece of work ready for the finish room.

When you realize that this material, whatever it may be, is delivered 500 per cent. faster than on roll feed machines, it don't take long to see the advantages. O. E. S., in Berlin Quality.

It is reported that the Spanish River Pulp and Paper Company will have two additional machines, recently ordered, in operation by the beginning of February, making the total output 200 tons a day. The company have contracts signed for the sale of their entire output, including that of the new machines, for the next five years. The contracts have been made on the basis of the recent good prices. It is also understood that the Ontario Pulp and Paper Company, now part of the Spanish River Company, have nearly as long a contract signed for the output of 100 tons of manilla. In addition to their paper production both the Spanish River and Ontario companies will have a certain surplus of pulp, mechanical from the Spanish River plant, and sulphite from the Ontario plant, to dispose of.

National Wholesale Lumber Dealers Association

The National Wholesale Lumber Dealers Association recently sent a circular to their members, calling attention to the lack of uniformity which exists, as regards terms of sales, and requesting them all to endeavor to remedy this defect. These conditions are as follows:

The terms hereon are those agreed on by both buyer and seller and are a part of the sale agreement. Settlement to be made promptly on receipt of each car. Freight, net cash. Balance by note at 60 days from date of invoice or less 1½ per cent. discount for cash if paid within 15 days from date of invoice; or 1 per cent. for cash if paid within 30 days from date of invoice. No discount allowed after 30 days. If car is not received within the above discount times, and discount is desired, prepayment on account will not be held as acceptance of the shipment and the right to make corrections and complaint will not be forfeited thereby. In making delivered prices, cost of goods delivered at destination is guaranteed, but not against delay in transit. Claims for count or quality must be reported as soon as car is unloaded and tally proven. No claims allowed if not reported within 10 days after unloading. General Conditions—All accounts and agreements are made contingent upon strikes, fires, floods, inability to secure cars, delays of carriers and other delays unavoidable and beyond our control. In making delivered prices we simply guarantee the cost of goods at your place, but are in no way responsible for their safe delivery.

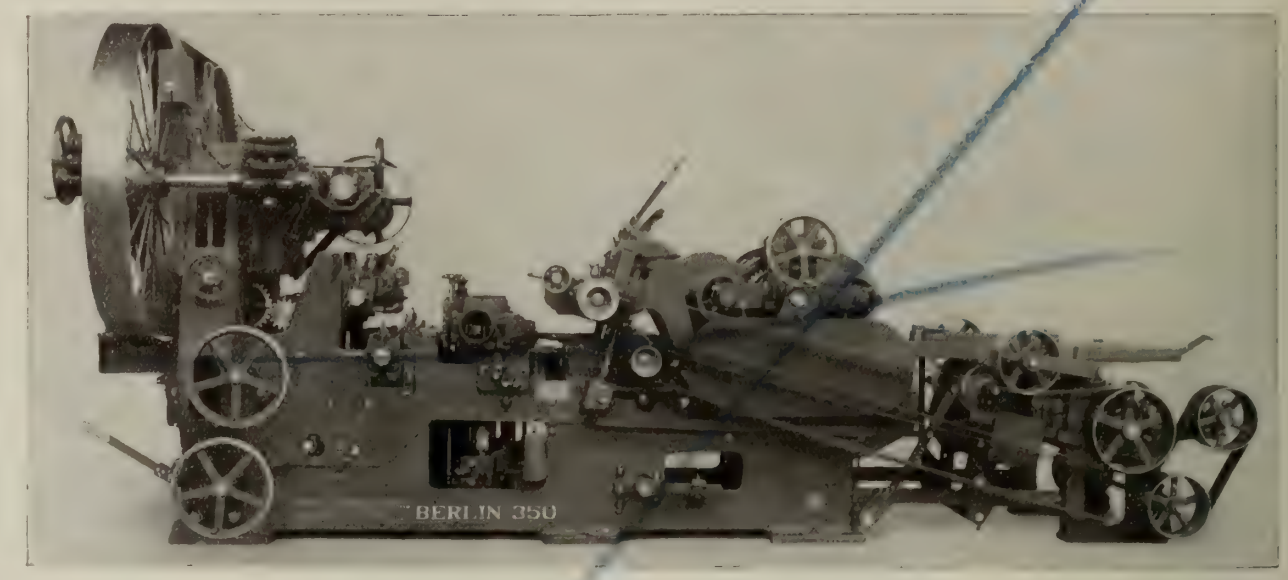
Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

Berlin Combines Resaw with Matcher

The Berlin Machine Works have, during the past few years, given to the lumber industry a number of machines that have made it more than profitable, for their users, to remain in the lumber business. Such machines as their new fast feed matchers with profiling device have almost revolutionized the production of the class of product which they manufacture.

The Berlin horizontal resaws also, have had a wonderful effect on certain systems of manufacture, for the most part in the box factory. The twin horizontal No. 345 is a wonderful producer with its hopper feed running a constant stream of stock through two saws.



Berlin Resaw with Matcher

The latest combination machine put on the market by the Berlin people is more interesting in itself perhaps, than either of these, because it makes everything in double thickness. This machine requires in effect one operation to finish two pieces of either flooring, shiplap, novelty siding, ceiling and bevel siding. This is the new Berlin Combination Matcher-Resaw No. 350. It combines in one machine a late Berlin Matcher Profiler with the horizontal resaw.

Probably the most interesting thing about this machine is that it makes perfect bevel and novelty siding at the same speed given the fast-feed matcher in making matched, beaded and profiled stock in single thickness.

This is an entirely new method of manufacture. An output of beveled siding for instance has heretofore depended on two machines and four men. Two men take full care of the No. 350. The manufacture of bevel siding until now has meant a lot of extra trucking and double handling, a large proportionate expense on low priced lumber. The one-operation machine simplifies the system and lowers the cost. Beaded and profile stock is as well made in double thickness with the combined machine as the regular matcher-Profiler makes it single. This in itself shows a 50 per cent. saving in manufacturing costs of these stocks as the speeds of the two machines are identical.

A Berlin Engineer speaking of the new machine said, "With the necessity of making good bevel siding before them, and the high cost involved, manufacturers have been demanding a cheaper method of production. So we took our fast feed matcher, equipped with 6-bitted round heads, 12-bitted side heads, the improved belt tighteners and the profiling device, in fact every feature of our high speed machine, and simply added the saw equipment."

The outfeed rolls of the matcher take the place of the feed rolls of the resaw. The resawing attachment is mounted on extra heavy cast-iron columns securely bolted to the one-piece matcher frame. Gibbed to the upper ends of these columns a heavy cross head carries the wheels. This cross head is provided with a hoisting arrangement to adjust the saw for varying thickness of work. It is also provided with a tilting mechanism for sawing at an angle as for bevel siding.

There is nothing complicated about the machine, nothing difficult to understand. No new problems are introduced to bungle any present system. It is simply a matcher with a band saw at the outfeeding end to resaw anything worked double or to make bevel siding without further handling.

The Berlin Machine Works, Hamilton, Ont., will send full information to those desiring it. Kindly mention the Canada Lumberman and Woodworker when writing.

Henry Disston & Sons, Inc. have published an excellent illustrated booklet describing their various types of machine knives. In addition to a large number of splendid illustrations, the booklet contains a most interesting article upon the making of Disston machine knives. The article is one which will repay reading by anyone who has to use machine knives as it is exceptionally informing and interesting. At the same time, it gives one a capital idea of the excellent quality of material used by Disstons and the care and attention exercised in the manufacturing of their goods. The booklet is prepared in a very attractive manner and should be in the hands of all users of machine knives. A copy may be secured by writing to Henry Disston & Sons, Inc., Philadelphia, Pa., and mentioning the Canada Lumberman.

The "Cyclone" Saw Mill Blower

The "Cyclone" Saw Mill Blower which is shown in this illustration in action on a portable saw mill, is manufactured by the Ramey Company, Chillicothe, Ohio. Several thousand of these machines are in use at the present time in American mills.

The "Cyclone" Blower is built especially for saw mills, particular attention having been given to its strength and durability, and

it is not injured by bark or hard knots passing through it. The Ramey Company claim that the "Cyclone" is a great saver in time and labor in that it does away with the necessity for having a man to shovel and wheel dust. The Ramey Company have recently opened an office at 10 Wellington street east, Toronto, where they are prepared to give their careful attention to Canadian business.

Changes in the Officers and Directors of the Joseph Dixon Crucible Company

At the regular monthly meeting of the board of directors of the Joseph Dixon Crucible Company, held on October 21st, the following changes in the officers and board of directors were made on account of the death of Vice-President William H. Corbin; Mr. George E. Long, former treasurer was elected vice-president to succeed Mr. Corbin; Mr. J. H. Schermerhorn, former assistant secretary and assistant treasurer was elected to membership in the board of directors and treasurer of the company. Mr. Albert Norris was elected to the office of assistant secretary and assistant treasurer.

The Retail Dealer and His Problems

Starting in the Retail Business

When a man starts in to sell lumber to the people of a rural community with the notion cinched up in his hat band that all he has to do is to pile up a few loads of boards, planks, scantling, lath and shingle, and then sit back and see them grow into money, he will be dead sure to find the basement of his overalls getting thin enough to need half-soling before the dollars begin to drop. The opening of a lumber yard is viewed by some people, who never have tried it, as a proceeding that calls for nothing beyond putting in the stock and letting the people come and get it as they happen to think they want it. Those who have tried it know better, and many of them know that even in the best of times and in the best of places it is necessary constantly to look alive and "toot their horn" to keep the people awake in the fact that they are in business for something besides their health.

There is some difference, of course, in the keeping of a city yard and one in a small country town, but the necessity for a wide-awake business policy exists alike in both. The city yardman has to keep on hand a larger assortment of stocks, and to supply the carpenter-and-jobber trade he must have constantly on hand and in convenient place the materials most likely to be called for on short notice. When it becomes known that he has the stuff handy and can give quick service, he gets the trade and can, if he will, hold it. He must first get the attention of the people—advertise, "toot his horn," and when he gets them coming, they come a-running.

This is a reminder of an ease-loving retailer who was well "set-up" in a growing grain town. He had the field all to himself; and while he was not so well fixed that he could turn up his nose at an order for a jag of rough stuff for a pig pen or a machine shelter, he was strong enough financially to take his own time about doing things generally. Among other self-indulgences he had acquired the habit of strolling up-street to a neighboring drug store in the rear room of which he and the druggist waged a see-saw battle for the checker championship of the town. While thus engaged his office and yard were left wide open and unattended for hours at a time, and if a customer came along the chances were that he would have to go up to the drug store to buy lumber.

This habit of the lumber dealer became a source of much annoyance to some of his out-of-town customers, for it was sometimes a labor that took time and patience to get him away from the game long enough to sell a bill of lumber. When called for to attend to business his invariable reply would be: "All right, pard, wait till I finish this game. Won't take more'n a minute now, I've got this chap cornered." Half an hour later, perhaps, "Dick" would disentangle himself from the druggist's furniture and stroll down-street to his office and his waiting and impatient customer.

"Throwing a Scare"

One day a peppery old citizen, who was well known for his vitriolic temper, wanted some fencing and material for a board walk. He drove his team into "Dick's" yard and, seeing no sign of life, he went into the office and sat down to wait for the only lumberman in town to come along and take his order. And then he waited some more. When he had waited away his limited stock of patience he snorted a few, hammered his knee and said—a bad word. Then he said some more, a good deal worse, all of which gave him a good start and he went out on a still hunt for the lumberman. He found him at the druggist's just setting out the men for "one more game."

"Hey, you," he roared, " your yard's on fire!"

The lumberman, intent upon the game, scratched his head and made his move. Then, looking up at the angry man in the doorway, he said, "Hello, John, what's the noise?"

"Your yard's on fire, dad burn ye! Come on out here an' git a hustle on or the' hull dad-gummed place 'll go up in smoke!"

For once "Dick" gave signs of being something other than a wooden man. He jumped up and ran out of the drug store and streaked it down the street toward his yard. He had not gone far before it occurred to him that there were no signs of a conflagration and he slowed down and stopped. Turning around he saw the old man, the druggist and several others laughing at him. Then the old man let a yell out of him that brought forth all the people in the adjacent stores and houses: "Run, you son of a gun! Your yard's on fire!" he yelled.

The lumber dealer went on his way, slowly, head hanging, and did not pause until he reached his office. He went out into the yard and going among the piles came upon a social function of a very interesting nature. Chris, the hustler, was seated upon a lumber pile with a "scuttle of suds" in hand, orating in his Moscow brogue to Adam, the teamster, who was waiting patiently on his load, which they had just brought from the cars, for his turn at the "scuttle," his fearful glance glued upon the seductive foam of that vessel.

The lumberman did not interrupt them. He seemed to have awakened to the fact that there had not been anything in his example to inspire his help with ambition or action. He returned to the office, peeled off his coat and went to work loading out his peppery customer, who was still grinning ghoulishly over the scare he had "thrown into" the dealer.

Elements of Success in Retailing Lumber

It seems to me that the biggest asset possessed by the retail man is confidence. Confidence in his stock, confidence in the people and confidence in himself, says W. B. M. in the Lumber World Review. Get a man's confidence, and it is ten to one that you will get his business. There are more mind readers abroad than is generally suspected, and if you can not look a man square in the eye while you are telling him a few of the reasons why he had better buy of you, you had better wear smoked glasses.

Don't be afraid to accept Farmer Jordan's invitation to go quail hunting some fine day, and take dinner with the family. If you can wing a bird without killing half the stock on the place, he will come to the office some day and talk it over with you. You will not only get more invitations, but you will get better acquainted. It may not be a quail hunt, it may be a game of checkers. In either case you have found a common point of interest.

Be public spirited. If you can help out on any local enterprise, do it. Just about a year ago the young men of our town got up a football team to play a neighboring town. I used to play the game while at college and like it yet, so I got out and limbered up some of the muscles that I had forgotten I had. All business closed for that afternoon, and everyone went to the game. It was a representative team, for it was made up of merchants, barbers, preachers and others who thought they could stand it. Well, we beat the visitors 39 to 0, and I do not think any of the men who played for the honor of the home team lost anything by it, except the customary skin, though some of had hard work persuading ourselves to get up the next morning.

If you can toot a horn, get out and blow the street lights out. The boys will appreciate it, and you will get to furnish the stuff for that new bandstand. In other words, be a mixer, and if you have any talents, put them out on interest in your community.

Get familiar with your stock, so you will not have to show your ignorance by hunting all over the yard for the 2 x 4-16's if your yardman does not happen to be there. The best way to do this is to help pile it, and the yardman will not think any the less of you.

Nothing is made by running down your competitor's stock. A good business man will see by this that you are as liable to skin him as you are to help him.

Never make a special price, and tell your customer not to say anything about it. It is too good to keep, and his neighbor will be in soon, and that is the first thing that you will hear, and, the first thing you know, your prices are all special, while your profits suffer from it. It does not pay to get a bill in this way.

When you think your business is doing fine advertise in the home paper. It helps, if no one but the editor buys of you, and he might speak a good word for you. Get him to help you out in your campaign against the mail order houses, for here is a factor that must be met. I have yet to find a man who has bought a second bill of one of these concerns, but the loss of the initial bill is enough, and if you get the first, there is no reason why you should not get the next.

A good memory for names and faces is indispensable to the small retail dealer. Any customer dislikes to be treated as a stranger. Even in settling up his account with you, he dislikes being asked his name. Getting hold of a man's "front" name make him feel at home in your office. If you have not the time to get on intimate terms with your customers you had better quit. This I say is for the dealer in a small town. It may not be possible in a city, although the more a person cultivates this faculty, in either case, he will find that his business will stand for more of it.

It is a good asset in any line and one that helps in any department in building up a business; it is one of the most important elements of success.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

WANTED—LUMBER, ETC.

Wanted

1,000 cars ordinary Sawmill Sawdust. Will accept now or later. State what you have. Box 639, Canada Lumberman, Toronto, Ont.
22-1-68

Wanted

Large quantity of Birch, Maple, Elm, Ash and Basswood, 1 inch and thicker, Log Run Dry or can place orders for spring delivery. Box 636 Canada Lumberman, Toronto, Ont.
21-24-63

Wanted

Five million feet Hemlock and Spruce, 1-in. to 2-in., for delivery next spring or summer. Can use portion now. State what you can supply. Box 640 Canada Lumberman, Toronto, Ont.
21-24-66

Lumber Wanted

Wanted—Stocks of Ash, Elm, Birch and Basswood lumber, all thicknesses, for cash. Send your list and I will look over your stock. Box 632, Canada Lumberman & Woodworker, Toronto, Ont.
21-22-54

Wanted

One million feet 4 x 4 to 8 x 8 Maple, Beech, Birch or Elm Squares. Will accept hearts of knotty stock, for rough work. Delivery now or during 1913. Box 638, Canada Lumberman, Toronto, Ont.
22-1-67

Soft Elm Wanted

We require for prompt shipment few cars 1¼-in. Soft Elm, No. 1 Common and Better, also 1-in. Winter sawn White Basswood.

Robert Bury & Company,
79 Spadina Avenue,
22-74 Toronto, Ont.

Birch Wanted

We desire to buy 100 M. to half million feet 4/4, 5/4, 6/4, and 8/4 log run No. 2 common and better Unselected Birch. For sufficient quantity will send representative to load stock. Terms cash upon inspection. Apply to Louisville Point Lumber Company, Louisville, Ky.
20-23-43

We use yearly five hundred thousand to one million feet of Birch, Basswood and Ash in our business and are open to contract with responsible mill men for same. We would be willing to advance money on the logs and also on lumber as sawn. Write us, Manufacturer, Box 619, Canada Lumberman, Toronto, Ont.
20-37 T.F.

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4½ in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont.
14 T.F.

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont.
7-tf

Birch Logs and Hardwood

Wanted from 100 to 300 cars Birch logs, 14-in. and over diameter and 10 ft. and up long, delivery will be accepted up to May, 1913. Desire also to communicate with parties having Hardwood lumber to offer. Box 630, Canada Lumberman, Toronto, Ont.
21-22-50

Lumber Wanted

Four, five and six quarter, Spruce, Hemlock and Norway, four, six, eight and ten inches wide, rough, also surfaced. White Pine Mill Culls and Lath. Box 615, Canada Lumberman & Woodworker, Toronto, Ont.
20-1-34

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

FOR SALE—LUMBER, ETC.

For Sale

For quick shipment, 100 M. ft. 2-in. Birch, December, 1911, cut. No. 2 C. & B. at $20 per M. on cars. Farm Point, Que. Hall Bros., 174 Mutual Street, Toronto, Ont. 16t.f.

For Sale

Five thousand pieces small posts, 3-in. to 4½-in. top, peeled and in good shipping condition. The Baker Lumber Company, Lindsay, Ont.
20-23-30

Timber For Sale

One million two hundred and fifty thousand feet of standing timber; fifty-three miles east of Toronto. Price and full particulars on application to E. Todd, 336 Main east, Hamilton, Ont.
22-23-72

Cedar Shingles

Four carloads XX 16-in. Cedar Shingles, retailing at $1.75 per M. Price in car lots $1.15 at mill, C. P. R. or G. T. R. Lindsay, Ont., for quick sale. Terms 30 days net. Box 279, Lindsay, Ont.
19-22-24

Pine For Sale

For sale by tender on the stump or loaded on cars at Waterdown Station, G. T. R., about 200 pine suitable for piles, from 40 to 70 feet long, 6 to 8 inch tops. N. H. Howard, Aldershot P. O., Ont.
22-69

For Sale

50,000 ft. 4-in. Hard Maple, No. 1 Common and Better, 75 per cent. 1sts and 2nds.
20,000 ft. 4-in. Soft Elm, No. 1 Common and Better, 75 per cent. 1sts and 2nds.
25,000 ft. 4-in. Basswood, No. 1 Common and Better.
35,000 ft. 1-in. Basswood, No. 1 Common and Better.

Apply ROBERT BURY & CO.,
79 Spadina Avenue,
22-73 Toronto, Ont.

For Sale

30,000 ft. 4-in. Hard Maple 6/16 ft.
30,000 ft. 2-in. Hard Maple 6/16 ft.
30,000 ft. 1-in. Hard Maple 6/16 ft.
Log Run (culls out); also
Square Cedar 8 in. x 8 in. to 12 in. x 12in.
Address H, Canada Lumberman, Montreal.
22-70

Lumber For Sale

400,000 ft. 3 x 7 and up Merchantable White Pine.
200,000 ft. 2 in. Merchantable White Pine.
200,000 ft. 1¼ in. Basswood, Log Run.
500,000 ft. Hard Maple, 1 in. to 4 in.
Apply to

GEO. C. GOODFELLOW,
Montreal, Que.

For Sale

Ten cars Telephone Poles. Can be loaded at once. For prices, etc., apply to P. O. Box No. 213, Almonte, Ont.
21-22-57

For Quick Sale

1,400 acres standing timber.
100,000 Cedar Ties.
100,000 Cedar Posts.
1,000 cords Pulpwood.
Also some pine. Above is estimate.

Owner must sell at once. Price, Three Thousand Dollars on terms or Twenty-eight Hundred spot cash. Contractor will take out and put on lake shore at following prices:

Hewn ties, 18c each; cedar posts, 5c each. Pulpwood, $3.50 per cord; cedar logs, $7.00 per M.; pine logs, $6.00 per M.

Apply Box 633, Canada Lumberman, Toronto, Ont.
21-22-55

FOR SALE—MACHINERY, ETC.

For Sale—A Snap

Ten sets Sleighs. Runners 4-in. x 7-ft., 5 ft. wide. Bunks 8 x 9 x 8 ft. Bench 9 x 10 x 6 ft. $15.00 per set. Box 603, Canada Lumberman, Toronto, Ont.
20-23-27

For Sale

Two Steam Engines, Boilers, Saw Mill Machinery and Barkers, all in good condition. Apply The East Canada Power & Pulp Company, Limited, Murray Bay, P.Q.
20-22-38

For Sale

5/4-in. Yellow Poplar saps. One carload 10-in. to 16-in. wide. Also one carload 2-in. panel and No. 1 Poplar 12-in. to 24-in. wide.

CHARLES F. SHIELS & CO.,
21-24-60 Cincinnati, O., U.S.A.

Saw Mill For Sale

Huntsville Lumber Company, Limited, will in the future only run one of their two double cutting Band Mills, which is now cutting fifty thousand feet per day.

They will sell the same with engine, boilers and all other machinery along with building. Also will sell blacksmith's tools and a number of saw-log sleighs and chains.

Huntsville Lumber Company, Ltd.,
22-42 T.F. Huntsville, Ont.

WANTED—EMPLOYMENT

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

Situation wanted, as office or general man. Sixteen years' experience in lumber. Good references. Box 624, Canada Lumberman, Toronto, Ont.
21-22-44

Wanted position as band saw filer to finish this season cut with the consideration of work next season. Can show first-class references. Reply to Box 620, Canada Lumberman, Toronto, Ont.
20-22-21

Thoroughly experienced office man, Canadian, age thirty-five, married. Expert bookkeeper and cost accountant, sawmill, wholesale and box factory. Experienced selling yellow pine; also seven years experience white pine, United States and Canada. Desire change to healthy location with good schools. Prefer position as assistant manager or office manager. Haven't lost a day in thirteen years. Reply, Box 613, Canada Lumberman, Toronto, Ont.
20-22-31

MISCELLANEOUS

For Sale or Trade

Two hundred acres hardwood bush, District of Parry Sound. Small mortgage of $1,000 against it. What will you trade?

B. J. McCORMICK,
21-22-49 Welland, Ont.

BUSINESS OPPORTUNITIES

For Sale

Saw Mill and fifty-three miles timber limits in County of Bonaventure, Quebec Province. For further particulars apply to J. D. Sowerby & Co., Oak Bay Mills, P.Q.
22-71tf

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest, if your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont.
tf.

For Sale

Established Lumber Business, with first-class mill, now running full time. Timber limits with 20 to 30 million feet of standing pine timber conveniently located, and all merchandise, etc. Price $55,000. This is worthy of investigation. Address Box 332, Canada Lumberman, Toronto, Ont.
19-22-t.f.

FOR SALE

A Going Lumber Business Steam Saw Mill and Timber Lands

Six and One-Half Miles from Lavant Station, K. & P. Railway, comprising Mill and 1,100 acres deeded land. Township Lavant, also license for 9-mile government limit in Township Dalhousie, adjoining mill property. All the timber lands are well wooded and all green bush. Has never been destroyed by fire. Ten to twelve million feet of lumber would be a safe estimate, probably five million feet of this original maple of good quality. Besides there is a great quantity of cedar, also five million feet comprising elm, ash, oak, basswood, poplar and second growth pine. Over 300 M. feet lumber now in yard sold for winter delivery, but would give purchaser some idea of qualities. This output could be doubled this year. Have contracted already for this season 200 M. feet to be taken from the stump and sawn and piled in yard for $8.00 per thousand. Can buy also large quantities from farmers in locality. Mill in good repair ready to start. Good stables, barn and three houses, sleighs and all equipment. No encumbrance. Too much other business to attend to. Price $10,000, half cash and half secured. For more particulars apply R. R. Drysdale, General Merchant, Lanark, Ont.
21-22-64

Important Sale of Valuable Timber Limits

Sealed tenders will be received by the undersigned up to and including the **20th day of December, 1912**, for the purchase of:

Limit No. 194 of 1873-74—River Jean de Terre—tributary to the Gatineau, containing an area of fifty (50) square miles, more or less.

Limit No. 195 of 1873-74—River Jean de Terre—tributary to the Gatineau—Island Lake, containing an area of fifty (50) square miles, more or less.

These limits comprise some of the best pine and pulpwood areas in the Province of Quebec.

Map showing location of these timber limits and report thereon may be inspected at the offices of the undersigned and from whom further information may be obtained.

The highest or any tender not necessarily accepted, and the acceptance of any tender will be subject to the approval of the Court.

The Toronto General Trusts Corporation,
30 Sigin Street, Ottawa, Ont.
or
Messrs. Aylen & Duclos, Barristers,
Castle Building, Ottawa, Ont.
or
Messrs. Belcourt & Ritchie, Barristers,
Castle Building, Ottawa, Ont.

Dated Ottawa, Aug. 5, 1912. 16-22-35

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 115 h.p. boiler, 100 h.p. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water.

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

Baughman's Buyer and Seller

The twelfth edition of the handy book for lumbermen just out. Revised, improved; see the new side tables, the metric system, tapering timber, to figure narrow flooring, moulding and box work, etc., five sections each indexed and separate work. Every page worth the price of the book. The book that talks to lumbermen. Not millions but more than seventy-five thousand copies have been sold to lumbermen. Bound in red flexible leather cover, $2.50 per copy prepaid. Orders mailed day received. Address H. R. A. Baughman, Indianaoplis, Ind. 19-22-18

Maltese laborers are to be brought to British Columbia to work in the mill of the Canadian Western Lumber Company on the Fraser River. A representative of the Maltese Government was in Vancouver last week in regard to the matter, and was assured by Col. A. D. McRae, general manager of the company, that employment would be given to fifty at first. Altogether 1,000 will be brought to British Columbia.

One of the important lumber specialties in the United States is pencil cedar, both for local consumption and for export. Practically all the good quality pencils are made from red cedar, and the scarcity of this wood, which is rapidly growing acute, has made of it a highly developed specialty. The greater portion of the cedar used in this industry is procured in the United States, and to supply the constant demand all available sources are being exploited, the search for the wood covering not only standing trees but also the wood in whatever form it may be found. One of the important sources of supply consists of old fences and fence posts, many of which have been in use for years and are still in sound condition, making excellent pencil material.

A somewhat paradoxical feature of this trade is the exacting demand as to quality of pencil wood, as compared with the general characteristics of cedar, which make it one of the poorest woods for lumber. The trees are generally small, crooked and knotty, and the limited demand for it as lumber exists only in cases where these defects are overlooked. On the other hand, practically only perfect wood, straight grained, soft and clear, is allowed in pencil cedar; and it is available only because it is used only in small pieces, which fact enables the perfect parts to be cut out and utilized.

Under these circumstances it is easy to understand that pencil makers have long been searching for a suitable substitute, but nothing has been found to fully meet these requirements, although it is stated that the incense cedar of California has of late come into some degree of use for the cheaper grade of pencils. No small degree of interest, therefore, attaches to the recent announcement that a wood has been discovered in East Africa which is almost if not entirely equal to the American cedar, and exists in sufficient volume to secure an abundant supply. Just how much faith is to be placed in this announcement is so far problematical, although it is stated that the new wood is already used to some extent in Germany. It is to be expected, however, that apart from the present experimental status of the wood, its comparative inaccessibility will make its effect upon the pencil wood trade of the United States a gradual one, and while it remains for the future to determine whether it becomes an active competitor of the American product, the probability of such a contingency according to present reports seems to be at least sufficient to be of considerable interest.

The damage suit for $17,000 brought by W. D. McElmon, of Serpentine, B. C., against the British Columbia Electric Railway Company, terminated in favor of the plaintiff, the court awarding him $8,500. Mr. McElmon held the railway company responsible for the loss of his mill by fire last August, when lightning ran into the mill over the wires which were improperly safeguarded. The mill was operated by electricity and the wiring was done by the railway company which also furnished the current. The case will be appealed. Many of the mills on the lower mainland are operated with electricity and lumbermen are watching the case with interest.

The cooperage industry of Canada is rapidly becoming an important competitor for the spruce wood of this country so largely used in the manufacture of paper. According to a bulletin which has just been issued by the Forestry Branch, elm still leads among the wood used for slack cooperage, but spruce is rapidly supplanting it. There were over 11,000,000 more spruce barrel staves, and 9,000,000 fewer elm staves manufactured in 1911 than in 1910, according to reports made to the branch. The elm supply is becoming diminished, and the ultimate substitute for it in making barrels is expected to be birch.

The Canadian Trade Commissioner at Belfast, Ireland, gives some figures showing Erin's imports of pulp and paper from Canada during the last few years in a recent report to the Government. Shipments of Canadian paper and pulp to Belfast direct last year totalled 481 tons, as compared with 452 tons the previous year, 505 tons in 1909 and 1,711 tons in 1908. To Dublin these shipments last year aggregated 368 tons as against 367 in 1910, 539 in 1909 and 1,053 in 1908.

Twisting a Band Saw Into Three Coils

A correspondent of The Timber News asks how to coil up a band saw into three coils so as to hang them up, or send them away. The following instructions are given in reply: Twisting a band saw into three coils is very simple when you know how it is done; yet, like a good many more things, it is very difficult to do unless you know how to do it. Having taken the saw off the machine, grasp it in the centre with your hands, one holding one side, the other hand the other side, the teeth away from you. The saw will now appear as if it was on the machine, one half will be at your feet, the other above your head. Now twist the saw with your hand, twist the top half, so that the twist does not pass to the lower half below your hand. Now twist it again the same way, and as you twist it let the top loop come towards you, then the saw will, if you open your hands, drop in three coils at your feet. All this may seem very involved, but if you go over the procedure you will find that after all it is very simple. What you must watch is to see that you do not allow the twist you give the saw to pass into the lower half, otherwise you must give it another twist to make up for it. You must be careful with small saws that have been brazed several times, or you may break the saws at one of the brazes.

Suspending the Gainer

There is a great variety of gainers and dado machines, and lots of wrinkles are used in connection with them,says the Wood-Worker, of Indianapolis. One of these is the suspending of the cutting equipment of an ordinary gang gainer from overhead, so that long material can be handled. To get the idea just right, get before you the picture of an ordinary gang gainer, study it a while, and you can see how it is practical to cut away the frame supporting the mandrel and its journals, and reverse the order of it, swinging it from above, leaving only the carriage and ways on the floor. This arrangement makes the carriage open at the ends, so that stock of any length can be handled over it. Another wrinkle along this line is the portable overhead gainer that is taken right out on the job where there is heavy framing to do.

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Review of Current Trade Conditions

Ontario

There has been practically no change in the situation since our last issue, business being steady and prices unchanged. A remarkable fact at the present time is that the United States presidential elections have not affected the market to any marked degree, either in Ontario or in the United States. As a rule the elections have a tendency to create more or less of a panic on the market. Some little improvement is noticed in the car situation, shipments from British Columbia being made far more promptly than a few weeks ago. In the neighborhood of the Ottawa Valley, however, manufacturers are complaining of a shortage of labor, and this, of course, has had an effect on shipments. The mild weather which has obtained for some little time has kept building operations very active and there is a good demand for all classes of lumber, particularly in the larger centres. Now that the farmers have practically completed their harvesting operations, an increased demand may be expected from the smaller towns.

The chief demand is for the lower grade of lumber, both in hard and soft woods. Mill culls in pine are particularly scarce and dealers find difficulty in obtaining any appreciable supplies. The situation in hemlock is unchanged except that, if possible, stocks are getting shorter, while the demand is not in any way abating. There is very little dry hemlock in the yards at present and no doubt other lumber is being substituted for it wherever possible.

United States

The fall trade still continues good, although there is some falling off in enquiries and actual demand. This is especially noticeable in the southwest. The wholesale trade is doing its utmost to get lumber forward from the mills. The intensity in the car shortage situation apparently has been transferred very recently from the southwest to the northwest, but some considerable relief is expected as soon as the severe weather sets in, and it is hoped that this will regulate more evenly the demand and supply.

Chicago.—The market for northern pine still remains very firm and there does not seem any likelihood of a material drop in prices so long as the general condition of the country is prosperous. Another fact in keeping prices up is the lessened supply. The demand for low grade pine is particularly heavy, upper grades being also in fair demand. The market in hardwoods is very brisk and the low stocks and good prices which can be obtained are allowing the hardwood manufacturer to choose his business. The biggest demand is still for oak, while birch, elm and maple are also steady sellers. There is really very little stock of the lower grades to be obtained. The hemlock situation shows little change, prices being very pleasing to manufacturers. The local consumption of hemlock is exceptionally heavy, and stocks are short, both here and at the mills. The movement of yellow pine is hampered by the car shortage and this is intensified by the fact that orders have largely increased while shipments have been lighter than usual. There are more red cedar shingles on the market, and while some clears are being sold for $3.22 and some stars for $2.74, the majority of these stocks are being held for $3.27 and $2.79 respectively. White cedar shingles are still in good demand. Lath is becoming scarce and prices may be expected to advance very shortly.

Buffalo.—There is a more even demand for the various grades of northern pine than a few weeks ago, the medium grades now being in steady demand. The upper and lower grades, however, are still in the best demand, especially the low, where the stock is very limited. Higher prices seem probable. More enquiry is being found for hardwoods than was the case a few weeks ago. Low grades are scarce and prices firm. Plain oak maintains its market strength. Hemlock prices have been advanced 50 cents by the Pennsylvania mills, the base price now being $22, which is said to be the highest that has ever been known. Trade has been active now for a long time and the large amount of local building has increased the demand materially. Red cedar is still in fair demand, but not much fir and spruce are asked for. Southern pine is somewhat quiet and dealers are unable to get shipments owing to the car shortage. Business is not quite so brisk in the building trade.

Bay City and Saginaw.—The movement of northern pine is still brisk, lower grades being in particularly good demand at the recent advance of about $2 per thousand feet. Local dealers will have plenty of stocks after navigation closes. The movement in hardwoods was never more brisk, all hardwoods being included. The market is very strong and prices tend to go higher. Very little stock is on hand, everything being moved as soon as possible. Maple and birch are very short.

Great Britain

Although the London spot market is not quite so brisk as many would like, yard keepers are very busy receiving and stowing their purchases, a large number of steamers having recently arrived. There is very little change in the freight situation; boats are not quite so scarce but rates are advancing, and consequently values follow suit. Business on the whole is very active and consumers now realize that they will have to pay the enhanced prices. The outlook for the remainder of the year is better than for some time past and given fair weather for outdoor work, possibilities are that a lot of leeway may be made up. Deliveries at London docks for the week ending October 19th, 1912, amounted to 8,791 standards, as against 5,612 standards for the corresponding week of last year. Owing to abnormal freight rates the consumption of all kinds of timber has been somewhat crippled at Liverpool. Consumers are quite reluctant to buy at present prices, apparently for the reason that they have not had to pay these figures for some years past. Some of them, of course, have realized the situation, and have been getting into the market to secure their requirements. There is quite a scarcity at Liverpool of New Brunswick and Nova Scotia spruce owing to the paucity of stocks held in those provinces. As the season closes in, small parcels only will be brought in by the liners just as tonnage can be secured. The season for Canadian imports is now closing up, and a few weeks will see the end of the imports from Montreal.

Market Correspondence

Ottawa Firms Enlarging

Ottawa, November 7, (Special correspondence of the Canada Lumberman).—With the weather exceptionally mild for this time of the year, lumber dealers in Ottawa and the immediate district are exceptionally busy. When the season's business is totalled at the end of this month it is believed the figures will show a record. Every lumber dealer in the city has enough orders on his books to keep him busy for some time. The shortage of cars is still acute and shows no signs of getting better.

The extensive alterations and improvements that are being made at the E. B. Eddy plant at Hull, will, when completed early next year, practically double the capacity of the present plant. The existing pulp mills are to be removed to make way for a large central electric power house and a new pulp mill with a capacity of one hundred tons of dry pulp per day. This new power house and mill will be constructed of steel and concrete and so situated as to be near the supply of wood. During the past few years new water wheels have been added to the plant as the demand occasioned. Now, however, the whole system of the power supply is to be altered and brought thoroughly up to date. Reinforced concrete bulkheads and side walls will surround the present forebay. The latter is being deepened. A new power house is under construction that will be able to utilize all the water flowing from the north side of the Ottawa River at the Chaudiere Falls. The new arrangement will mean a gain of from six to eight feet of head. The new electric power plant will have three units of turbines and generators to develop 4,500 to 5,000 horse power each and will be operated from one station. The increase in power will be about fifty per cent. This plant will supply power to the paper and sulphite mills, bag, match, and pail factories.

According to a bulletin recently issued by the Canadian Forestry Branch, jack pine ties are taking the place of Eastern cedar for railroad work. In 1910, says the bulletin, forty per cent. of the ties used by Canadian railroads were of cedar. Last year the percentage of cedar ties used had fallen to 5.4 per cent. and jack pine had risen to forty per cent. Other varieties of ties used last year were tamarak, 19 per cent.; Douglas fir, 14 per cent.; and hemlock, 12 per cent. A total of 13,683,770 ties were used, 4,469,808 more than in 1910. The average price per tie was 39 cents. Some of the most expensive ties were supplied by the United States, such as southern pine at $1.10 each and white oak at 81 cents each. In 1911 the sawn tie was more extensively used than the hewn tie. The comparative figures are: sawn ties, 70 per cent.; hewn ties, 30 per cent. The bulletin says that creosoted ties would mean a saving to railroad companies in Canada of $1,400,000 per year.

It is learned from officials of the Conservation Commission that on account of the wet weather this year the Fire Inspection Department of the Railway Commission has not been kept very busy. Since June last few fires have occurred and those that did occur were not the fault of the railroads. The system of fire protection of the forests

Partial view of booming ground and lumber yards

For Quick Sale

We have the following stock of lumber piled where it is necessary for us to move it quickly on account of our insurance. We offer it at attractive prices for quick sale.

3,500 ft. 5/4 No. 2 shop.
4,500 ft. 5/4 No. 3 shop.
4,000 ft. 5/4 stained saps.
8,500 ft. 5/4 outs from fine com. and bet.
20,000 ft. 5/4 No. 1 mill lumber.
14,000 ft. 5/4 No. 1 barn.
7,000 ft. 6/4 No. 1 barn.
8,500 ft. 5/4 No. 2 barn.
4,000 ft. 6/4 No. 2 barn.
58,000 ft. 5/4 No. 3 barn.
20,000 ft. 6/4 No. 3 barn.
3,000 ft. 5/4 No. 1 box.
13,500 ft. 5/4 x 5-in mill run.
6,000 ft. 6/4 x 4-in. mill run.

Write or wire for quotations

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

A. F. Holden, Pres. J. M. Diver, Vice Pres. and Gen'l. Mgr. E. C. Barre, Ass't. Mgr.

in Canada adopted by the Railway Commission is working out satisfactorily.

At a meeting of the directors of the Bank of Ottawa held this week, Mr. Russell Blackburn, a director of the Hawkesbury Lumber Company, was made a director of the bank to succeed the late Mr. H. F. McLachlin, prominent lumberman of Arnprior. Mr. Blackburn is yet a young man, being only thirty-six years of age, yet he is already one of the leading financial and business men in Ottawa. He is a son of the late Mr. Robert Blackburn, M.P, for Russell County. He was born in Ottawa in 1876, educated first at the public and high schools and then at the Royal Military College, Kingston. At the age of 18 he entered the head office of the Bank of Ottawa as clerk and remained as such for two years, when he left to manage the East Templeton Mica Mines, which he and his brother owned and still own and operate. When the Ottawa and Hull Power Company was organized in 1900 Mr. Blackburn was appointed general manager, a position which he still holds.

A large reinforced concrete cutting shed is being built by the W. C. Edwards Company. It will be completed this year.

In view of the increased rates on lumber which go into effect for the winter season, Ottawa lumber dealers are hustling through shipments of lumber to Montreal for export to England. The export trade from here is very brisk this year.

Business Brisk at Montreal

Montreal, Nov. 12; (Special correspondence of the Canada Lumberman).—When times are prosperous and conditions vary but slightly from issue to issue, it is difficult to write much that is fresh concerning the market. Business all round is again exceptionally good, and he must be a poor lumberman who has not picked up some money during the past season. Of course cars are again scarce, but inquiries show that in some instances there is an improvement in the supply. The local demand for lumber is excellent, and as there is every indication that the building boom will continue for some time, we may look for a satisfactory market in the immediate future. For the month of October the building permits totalled $2,846,508, an increase of $1,186,553 on the corresponding month of last year; while for the ten months the aggregate was $16,171,902, a gain of $3,092,739 on 1911. Prices keep very firm, with an upward tendency for spruce, one and two inch descriptions of which are in big request. The lower grades of pine and spruce are very scarce; lath is strong, and from the small stock available it looks as if quotations will still further advance. Shingles too, are very hard in price. All kinds of hardwoods are selling well at good quotations.

British shippers are still rushing stock to the other side and report a satisfactory market.

Trade with New York and the Eastern States is on a large scale, better in fact than since 1906, and prices are even higher than during that boom period.

Reports from some parts of the Province of Quebec state that logging operations are backward, owing to the very heavy rainfall, which has rendered it very difficult to work.

The New York State canals close on the 15th inst., and the last boats with lumber left here on the 7th. This fall freight rates by canal boats have remained stationary, owing to the decreased shipments of pulpwood, which left more space available for ordinary lumber. Under these circumstances freights were unchanged.

Canadian paper mills are now fully occupied with their water shipments. The ground wood market has considerably strengthened, much larger shipments having been made to the United States. There has been a reduction of the water fall in the United States, although the streams are still at full height. The approaching cold weather will cut off any rainfall, and it is expected that stocks, which are admitted to be heavy, will be gradually reduced, and quotations further improve in the early part of the winter. Notwithstanding the heaviest rainfall for five years, the Canadian ground wood business has done remarkably well this year, in spite of the extremely heavy new tonnage which has come into the market. The largest mill in the country has sold its output for a long period ahead, and recently purchased for European shipment about 6,000 tons held in stock by another mill.

Chemical pulp is in very great demand, and is still advancing in price. Pracically everp paper-making works in the world is now operating to its fullest capacity, and as an immense amount of pulp is being used, it is believed that quotations will go still higher.

It was pretty certain that if the Provincial Government raised the restriction on the export of pulpwood from Crown limits the United States would in turn cancel the present duty on paper manufactured from Crown limits wood. It was also pointed out that the British Columbia Government had set a precedent in the matter of allowing wood from Crown lands owned by a newsprint company to be exported into the United States, and the latter, in recognition of this concession, permitted the paper to go into the country duty free. The deputation were convinced that, if the example of the British Columbia Government were followed by the Quebec Government, it would stimulate the newsprint industry of the province.

Sir Lomer Gouin briefly discussed the various points raised, and promised that the government would favorably consider the request of the deputation.

Mr. Paul G. Owens, secretary of the Limit Owners' Association, has also submitted a memorial to the government supporting the views of the paper makers. In the same memorial reference is made to the stumpage dues, which, it is suggested, might be reduced, with advantage to the lumber business.

In the Speech from the Throne, the Quebec Government state that the wealth of the forests and hunting territories in southern Ungava and in the northern sections of the Province of Quebec is often threatened through the imprudence and wilful neglect of prospectors. The government, however, will see that all the riches of that region are protected. The government intends to promote, as is done in certain countries, the establishment of public and private parks where game and fur bearing animals can multiply.

Stocks Reduced at St. John

St. John, N.B., Nov. 6th. (Special correspondence of the Canada Lumberman): Practically no changes have taken place in demand or prices for wood goods at this port, since last writing, the prices both in English and American markets continue strong but the great trouble is to get the tonnage to remove the stocks. Freights to United States ports viz., New York and Sound, continue at $4.50 and $4.25 respectively, with very little tonnage offering at those prices. Nova Scotia is taking a large amount of tonnage at $5.00 to $6.00. This of course is always the case in many Nova Scotia ports at this time of year, as unless the shippers are able to remove their stocks before winter sets in, they will have to hold until spring as nearly all the harbors freeze up and vessels cannot get to berths. It is felt that American freights will cheapen perhaps 25 to 50c. per M. from this port in the near future as the Penobscot & Kennebec rivers will be frozen and other outports on Bay of Fundy will be in the same condition, therefore vessels will have to take less or tie up, but it is the opinion that $4.00 will be the winter rate, for some time at least at which price vessels ought to be able to put by some money. Freights by liners to London for winter have advanced from 45s. to 47s. 6d. with other ports of discharge remaining about as before.

Stocks of English deals on wharves at St. John at present time are not heavy, viz., between 30 and 40 million with only about three weeks more of open season to figure on. This is not as large a quantity as usual on hand at this time of year, as many of the mills have been sawing for the American market. Stocks of American plank and deals are quite heavy, as it has been hard to secure tonnage, therefore mills have been forced to pile up a certain amount, but in nearly every case both American and English deals have been sold, and by spring the probabilities are that it will find the mills entirely cleared of all sizes. All the mills with exception of Messrs. Stetson Cutler & Co. who will operate all winter, will close down anywhere from the 1st to 15th of December and will remain idle until about April 1st. Some mills will not start until opening of navigation, about April 20th.

It is said that a large quantity of deals will be sawn by portable mills through the province during the winter, but at this date it is not known just what the cut will be. It is felt that with the high cost of stumpage, rates of freight and labor, that many of the small operators will find it difficult to have their operations financed, therefore many of these portable mill men, unless they have old chances to work upon will not be able to operate. Of course many of the farmers are of late years hauling out their logs and manufacturing them instead of selling the logs in the round.

Stocks of laths are not heavy being about 12 to 15 million, but it is said that large numbers of mills will go into the woods both in New Brunswick and State of Maine to manufacture round wood laths during the coming winter.

Practically no low grade stocks are to be found in the yards at present, as the local consumption has continued extra good right to date.

Hemlock boards are almost impossible to get at any price, as nearly all hemlock logs in this section were manufactured into timber for wharf building, which went into immediate consumption.

Pine boards, etc.—Practically no stocks of dry last year's boards are to be found, the mills of course are sawing their usual quantity of pine but it will hardly be dry enough for use until spring or early summer of next year. Shingles still continue active, with low grades well sold up.

Prices for English deals remain about the same, viz., $15.00 for specification of 50 per cent. 7 and 8 x 3 balance 9 and up, but as practically every mill has sold its cut, the price has very little bearing upon the market at this port. Deals for winter shipment from

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The Rat Portage Lumber Co. Ltd.

Manufacturers of

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LUMBER

Cedar Shingles, Fir and Cedar Lath

Car Sills and Sheathing, Cedar Siding

Large and Long Timbers
for heavy construction work

Vancouver, B.C., and Harrison River, B.C.

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Is the old reliable, has always taken the lead and always will.

The BEST for the CAMP, the MINE and the HOME.

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Jenckes Boilers

WE aim to keep on hand a well assorted stock of Horizontal Tubular, Vertical and Locomotive Type Boilers. Your enquiry will probably find us in a position to ship the required boiler at once; if not it can quickly be built. Write us anyway.

The Jenckes Machine Co.

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rotary mills in the interior are said to be offered at about $14.00 for above specification, of course city deals always being $1.00 to $1.50 per M. more than portable stock, as manufacture is better, also lumber is better qualified.

Very little stock is being sold in the American market less than $25.00 as a base price on good lines of two and three inch, the average length and percentage of wides having much to do in range prices. Many enquiries from New York, Sound and New England are coming in daily, which shows that the business is still in splendid condition. Good long random spruce would net about $18.00 on wharves at St. John. Laths are selling for about $2.70 on wharves here.

Shingles at Boston are bringing $4.25 for extras, but manufacturers here are not disposed to sell any large quantities at that rate. Clears $3.90. Of course the brand has much to do with the top price.

Building still continues brisk, but practically no new buildings will be started at this season of the year. For spring, many large new buildings are now being figured upon, and it is felt that next year will be a banner year in the building trade at St. John.

The Provincial Lumber Co. are shipping large quantities by vessel from this port at the present time.

Canadian Lumber Scarce at Tonawanda

The Tonawandas, N.Y., Nov. 7, (Special correspondence of the Canada Lumberman).—The Large Brothers Lumber Company is the name of the newest member of the local family of lumber dealers. Messrs. Preston T. Large, Jr., and his brother, Hamilton Large, together with Mr. Dow Vroman, all residents of North Tonawanda, are the incorporators. The new firm will have office and yard room on Tonawanda Island. It will conduct a general wholesale lumber business. Mr. Preston Large was formerly connected with the Eastern Lumber Company of Tonawanda, and Mr. Hamilton Large with Smith, Fassett & Company, and are both experienced lumbermen.

While a change in administration at Washington will occur next March, there is little apprehension on the part of local lumber dealers as to the effect on the lumber trade. "Business is entirely satisfactory and we don't intend to cross any bridges until we come to them," said a prominent local lumberman the day before election. "We don't intend to worry and from the promises made by Woodrow Wilson there will be no drastic methods used to worry business, either big or little. A possible reduction of the duty on lumber or wiping out the import tax entirely would not be considered a very serious blow to the trade. We are buying all the Canadian lumber we can get with not near enough available to meet the demand even with the tax imposed." This view appears to be general among local dealers and certainly augurs well for confidence in the future of the market as it might affect local conditions.

The favorable weather of the last two months has exerted an unusual stimulus on building in the territory supplied by local dealers and thers is more stock moving out of the Tonawandas just now than during any corresponding season for several years. Cars are fairly plentiful and shipments can at last be guaranteed with accuracy. There is more of a car shortage at the mills than elsewhere and the greatest difficulty is in receipt of stock. Canadian grades in particular are scarce. For a fortnight now and longer with some dealers there hasn't been a stick of Canadian lumber received at the Tonawandas. The reason is there is no Canadian cut to be had.

High rates, in fact record rates, are being paid for cargoes of lumber from the head of the lakes to the Tonawandas. $3.50 a thousand is being asked and there are not enough boats to go round. Several local dealers have decided to leave considerable stock at upper Canadian and American shipping points until next spring rather than pay the present high rates which are practically certain to go higher.

October, 1912, showed big shipments of lumber east via the Erie canal. Over 17,500,000 feet left the Tonawandas for New York and intermediate points. The same month last year showed canal shipments east of 13,875,000 feet. The fact that considerable of this lumber was held up by the break in the canal at Bushnell's Basin and was not included, therefore, in the September receipts, was partly the cause of the big total for October this year.

Several local dealers are receiving their last shipments of the season from upper Canadian and American mills. It is somewhat early for closing receipts but several unusual conditions this fall are the cause. Among those who are closing receipts early are the Northern Lumber Company, Smith, Fassett & Company, and McLean Brothers. The latter are large handlers of Canadian stock and will get about 2,000,000 feet more before they close their books for 1912 receipts by boat. The Northern Lumber Company will bring down 3,000,000 feet, while Smith, Fassett & Company are preparing for the receipt of about 2,000,000 feet more.

Schacht

=The Lumber Truck that Builds Big Business

Do you know that one Schacht Lumber Truck is worth more to you in dollars and cents than six to eight teams and wagons?

Men who have experimented say that horses can no longer compete with motor trucks in the lumber business.

Won't you let us show you where you can save money on your 1913 operating expenses?

Our booklet will be mailed free on request. Write for it.

Schacht Motor Car Co. of Canada, Ltd.

Hamilton, Ontario

A Few Specifications—

Motor, 45-50 H.P., four cylinders.

Ignition, magneto, with double system.

Oiling, plunger pump in crank case, separate feeds to all bearings, with splash system.

Clutch, cone, thermoid faced, 15½ in. diameter.

Transmission, selective sliding gear, 3 speeds, forward and reverse.

Emergency Brakes, internal, expanding on rear wheels, 18-in. drum. Service brakes on each end of jackshaft.

Frame, rolled steel channel section, 6-inch side members.

Frame, 217¾ in. long, 38¾ in. wide.

Axles, rear, rectangular, 2¾ in. wide, 4 in. deep, drop forged. Front Timken, 1 beam with solid section through centre, 2 in. wide, 2¾ in. deep, dropped forged.

Bearings, Timken roller bearings in wheels, jackshaft and steering knuckle, annular bearings in transmission.

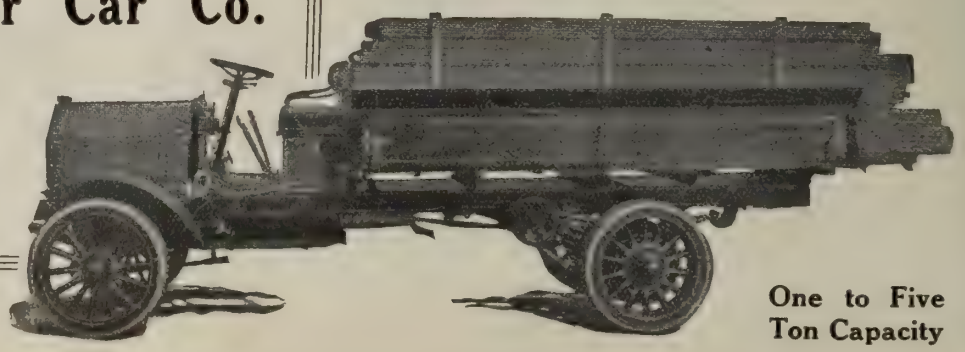
Tires, 36 x 4 in. single front, 36 x 5 in. dual rear.

Wheel Base, 144 in.; tread 64 in.

Speed, 10 to 18 miles per hour on direct.

Loading Space, 11 ft. 5 in. back of seat on chassis frame.

Body, to order.



The Truck with Good disposition — built for Canadians with Canadian money.

One to Five Ton Capacity

Bain Sleighs for Logging Operations

Famous for their great Capacity and Light Draft

LOGGING is a severe test of a sleigh.

The best is none too good, even though you may pay considerably more than for one which possibly may appear to be just as good.

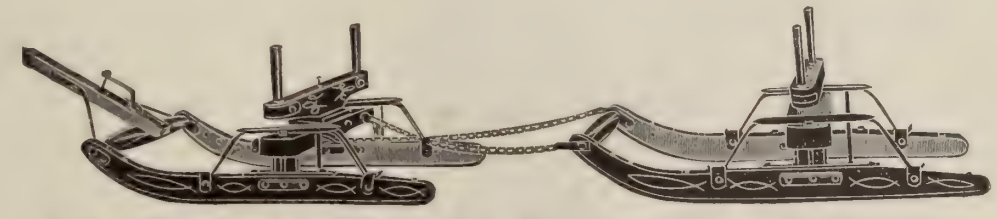
It is only by actual test—the test of time and hard usage—that the difference is apparent, and the increased first cost is forgotten. **The quality is remembered long after the price is forgotten.**

The cross chain couplings allow great flexibility and the hind bob follows in the tracks of the front when turning. Some prefer the short reach for well broken roads as a sleigh so fitted can be backed same as a wagon.

Swing bunks are an advantage in the bush, as they can be swung parallel with the runners when driving without a load.

Any of these sleighs except the heavy sloop can be fitted with 38, 40 or 42 inch bolsters for general work.

Our new catalogue No. 30 tells all about it and is yours for the asking.



The Bain One-Beam North Shore Sleigh

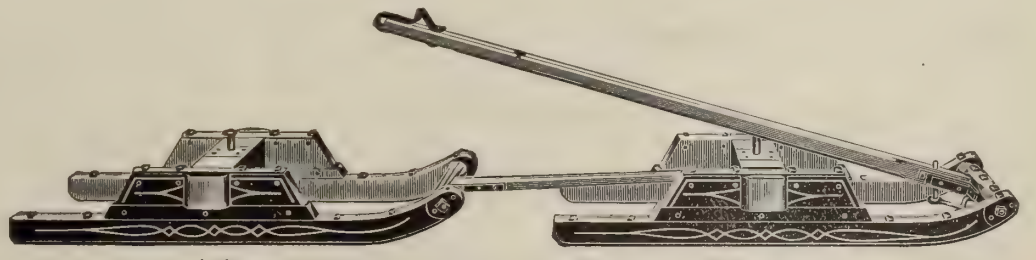
Steel Shoes; Swing Bunks or Bolsters; Cross Chain Coupling; 2 ft. 10 in. or 3 ft. Track. Clearance under Beam 9½ inches

The Bain North Shore Sloop Sleigh

Steel Shoes; Cross Chain Coupling; 2 ft. 10 in. or 3 ft. Track. Clearance under Beam 7 inches

The Bain Heavy Sloop Sleigh

Steel Shoes; Cross Chain Coupling; Furnished without Bolsters but with king bolts front and rear; 3 ft. 4 in., 4 ft. 4 in. or 4 ft. 8 in. Track. Clearance under Beam 7 inches.



The Bain Heavy Sloop Sleigh

With Short Reach Coupling

The Bain Double Beam Manitoba Sleigh

Steel Shoes, Short Reach Coupling, 3 ft. track. Clearance under Beam 9½ inches

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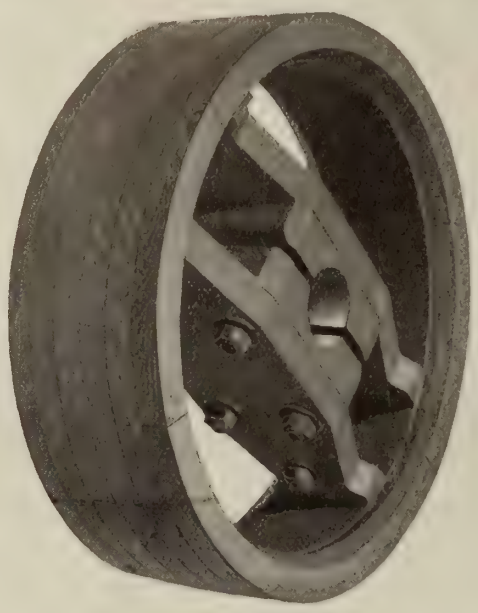
Wood Split Pulleys



We have been making these Pulleys for nearly three years and have never had a complaint against the Pulley. If you will try one you will never use any other kind.

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Limited
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Everything in Spruce

Dressed and in the Rough

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Board of Trade Building, MONTREAL

What J. D. Shier says about the Barkey Lumber Register

Barkey Bros., Stouffville, Ont.

Dear Sirs,

Yours to hand and noted. We have been using one of the George Lumber Registers for some years past and find it still working well. It gives very accurate measurements and have never known it to make a mistake. When in need of another we will certainly get one of the same kind.

We remain respectfully yours,

Feb. 5, 1908. J. D. SHIER, Orillia, Ont.

Can be used on any moulding or matching machine.
Ensures absolute accuracy and saves one man measuring.
Sent on 30 days' trial, return at our expense if not satisfactory

BARKEY BROS.
Sole Manufacturers
STOUFFVILLE - ONTARIO

EDGINGS

Ontario

The C. G. Anderson Lumber Company, Ltd., has been incorporated at Toronto with a capital of $40,000.

The Forest Basket Company, Ltd., with head office at Forest, Ont., has been incorporated with a capital of $25,000.

Damage by fire to the amount of about $50,000 was recently caused to the factory of the National Casket Company, Toronto.

The Algoma Hardwood Floor and Lumber Manufacturing Company, Ltd., has been incorporated at Steelton, Ont., with a capital of $40,000.

A fire which recently occurred at the Baker Lumber Company's mill at Lindsay, Ont., did damage to the extent of $20,000. A year ago last spring a similar fire occurred.

Good progress is being made on the buildings of the Ontario Paper Company at Thorold, Ont., and it is expected that work will be completed by the end of this year.

The Stone-Grant Lumber Company, Ltd., has been incorporated with a capital of $500,000 to carry on business as lumbermen and general contractors, with head office at Toronto.

E. A. Mann, H. D. Murphy and James Ludgate, of Orillia, Ontario, are completing negotiations for the purchase of 15,000 acres of timber on the Macleod River, Western Alberta, the price being placed at $100,000. The owners live in Edmonton.

Mr. Hugh A. Rose of the Canadian Western Lumber Co. Ltd., Toronto, reports that his company has just shipped from Fraser Mills, B.C., to Montreal, what he describes as four tooth picks. These are actually four poles of British Columbia fir, the dimensions of two being 14 in. x 14 in. x 85 ft. and the other two 16 in. x 16 in. x 90 ft. It is thought that these poles are to act as masts for wireless telegraph towers. The fire which occurred at Fraser Mills about two weeks ago destroyed eight drying kilns and about one-half million feet of clear fir. These are about one-half of the dry kilns, and they are rebuilding at once. Some of the kilns will be ready in two weeks and the balance in from six to eight weeks.

Eastern Canada

W. F. Vilas, Cowansville, P.Q., is preparing plans for the erection of a dry kiln, 60 ft. x 34 ft.

La Compaignie des Marchands de Bois de Quebec, with a capital of $20,000, has been registered at Quebec.

The output of the paper mill of Price Bros. & Company, Limited, Kenogami, P.Q., will be increased during the coming year by 45,000 tons.

The Grenville Lumber Company, Limited, Montreal, (Cyrille Laurin, Charles Wilson and others) has been incorporated at Quebec with a capital of $200,000.

The Lumber & Construction Company, Ltd., has been incorporated with a capital of $300,000 to carry on business as lumber dealers. The head office is at Ville St. Pierre, Que.

An association has been formed in New Brunswick and eastern Quebec of those interested in the shingle business. The name chosen is the North Shore Shingle Association.

Work for the season has just been closed by the York & Sudbury Milling Company, Gibson, N.B. This season's operations were the largest ever cut by them, about 6,000,000 logs being the total.

The Chicoutimi Pulp Company have just contracted to supply the Harmsworth paper mills on the River Thames, London, Eng., with 25,000 tons of mechanical pulp each year for a period of ten years.

Plans are being rapidly developed for the work at Grand Falls, N.B., for the erection of the large pulp and paper mills which have been projected for some time. The sum of $8,000,000 is involved in this venture.

Owing to the excessive freight rates from New Brunswick to England, very little lumber is being shipped there. Two years ago the rate was 30 shillings, now it is up to 80 shillings, which is almost a prohibitive figure.

A new method of rafting logs is expected to be tried on the St. John river, N. B. The method is what is known as "shingelling." This plan is in use on the Miramichi, and is said to be more economical than that which has been in use on the St. John river for so many years. This new step is taken as the result of the increasing cost of rafting logs.

Mr. James Reid Wilson has been appointed director of the Wayagamack Pulp & Paper Company, in succession to Sir Rodolphe Forget. He is a big holder of the company's bonds. The board now consists of Messrs. J. N. Greenshields, president; C. R. Whitehead, vice-president and managing director; Hon. Robert Mackay, D. H. Pennington and Jas. Reid Wilson.

The annual meeting of the stockholders of the Fassett Lumber Company, Limited, was held recently at the head office of the company, Fassett, Que. On looking over the past year's business they found that they had had an exceptionally fine year in all branches. The old staff of officers were re-elected. The company is planning to manufacture more lumber this year than ever.

The Maple Leaf Lumber Company, Limited, of Amherst, N.S., have purchased 18,000 acres of timber land in Cumberland and Colchester counties, from the Londonderry Iron & Steel Company. The company will operate eight or nine portable mills this winter, and expect to market about 15,000,000 feet of lumber. The Maple Leaf Lumber Company, Limited, is composed entirely of Amherst citizens. Mr. I. J. Soy being the manager.

The Hardwood Lumber Company, St. John, Nfld., are erecting a small pulp mill to run three grinders, with a capacity of twenty-four tons of ground pulp per day. The power will be about 2,000 h.p. derived from the Indian Arm River. The concrete dam is in course of construction, extending across the river gorge, being about 900 feet in length. This will give

a 40-ft. head. The construction has been going forward since May last, and the company expect to have the mill operating by August, 1913. They are spending about $100,000 on the plant. The company have 200 square miles of timberland and operate a saw mill in conjunction with the pulp business.

The Sawmill Owners' Sales Company is a private concern which has been organized with head office at 423 Coristine Building, Montreal, with the object of centralizing the sales office of twelve mills in Quebec and New Brunswick. The company will control an annual output of 40 million feet of spruce, in addition to large quantities of lath and shingle. Although the company will have the exclusive sale of the products of these mills, it is open to dispose of, in addition, the output of other mills at the option of the sales manager. Some of the N. B. mills are at Jacques River, Campbellton, and Belledune, while Quebec mills are situated at Montmagny and St. Anselme. The company will have sales offices in New York city, New England, and in Western Canada. The president is Mr. A. Culligan, M.P.P., N. B., and the managing director, Mr. U. E. Germain, Montreal.

By the judgment of the Privy Council in the case of Parsons vs. the Sovereign Bank, the latter loses about $15,000 in claims. The case arose out of the financial difficulties of the Imperial Paper Mills Company, which has since been absorbed by the Spanish Mills Company. Parsons Brothers, a firm of wholesale stationers in New York, had given orders to the Imperial people for certain paper. The Imperial Company having become involved in difficulties, the money was raised by hypothecating statements of shipments to Parsons Brothers, with the Sovereign Bank, in order to keep the mill running. The mill went into the receiver's hands and Parsons Brothers subsequently refused to pay for the goods, claiming damages from delay in shipment. The bank brought suit, and Mr. Justice Britton decided in the bank's favor. Parsons Brothers appealed and lost. The Privy Council has now reserved these Canadian decisions.

Western Canada

The city of Winnipeg have awarded a contract to the Sprague Lumber Company for the supply of 1,000,000 feet of lumber during 1912 and 1912.

The Acme Sash and Door Company Limited, Rue des Meurons, St. Boniface, Man., are erecting a $10,000 plant which will be two storeys high and 72 x 104 ft.

The city council of Prince Albert, Saskatchewan, have granted to the Prince Albert Pulp and Paper Company, Ltd., easy terms for electric power, and has also granted them a free site.

The Canadian Western Lumber Company, Fraser Mills, B.C., are preparing plans for the erection of a sash and door factory at a cost of $350,000. The factory will adjoin their present plant.

Hale & Company, Limited, have been incorporated in British Columbia with capital of $100,000, and head office at Vancouver, to carry on business as dealers in timber lands and conduct lumbering operations in general.

Representatives of the St. Lawrence Lumber and Industrial Company, the B. C. Howard Lumber Company and the International Lumber Company of eastern Canada, were in Edmonton, Alta, on October 1 and 2 looking over the city with a view to making investments in city and farm property.

Mr. H. S. Irwin, B. C. Government timber cruiser, has recently returned from a trip up the mainland coast as far as Redonda Island. Mr. Irwin's journey was with the object of estimating the value of several fractions which the government intends to put on the market in the near future.

Reports have recently been published to the effect that the Barnet Lumber Company, Renfrew, Ont., intended to erect immediately, a mill at Hope, B.C., to cut the timber on their Silver River limits. Mr. J. E. H. Barnet reports that the company do not intend building a mill this year but may do so in the near future.

Big timber limits are expected to be developed when the Pacific Great Eastern Railway Company opens up the territory in the neighborhood of the valley of the Cheakamus, B.C. This valley is estimated to contain about nine billion feet of the finest standing timber in British Columbia. The town of Lillooet is in the midst of this district.

Frank Paterson, W. L. Paterson, John Hanbury and F. L. Buckley, are among the lumbermen of Vancouver who have in view the utilization of the refuse fires to create steam heat and electricity for custom purposes. They have brought the matter to the attention of the civic authorities and are securing a franchise to enable them to lay conduits in the city.

The Phoenix Lumber Company and the Jasper Forest Sawmills Company are cutting 130,000 feet of lumber a day near Edson, Alta., west of Edmonton. The manufacturing of lumber will be one of the leading industries for some years to come in that district, on account of the demand which the development of the country and the opening of the rivers north of Edmonton will inevitably create.

The capital City Box Company, Ltd., of which W. H. Gibson is presilent, has started operating in Edmonton. Neil McIntyre, who has long experience in the box business, is a member of the company, which owns a plant valued at $25,000, of which $20,000 is represented in machinery. The equipment is the most up-to-date in western Canada. All the latest machines used in box making have been installed, including planing machines, band saws, nailing, locking, wiring, printing and other machines for the manufacture of boxes of all kinds. When running at full capacity the plant is capable of turning out between 2,000 and 3,000 boxes a day. The plant is electrically operated. At present the factory is employing 20 men.

The Canadian Puget Sound Lumber Co. has decided to install an up-to-date system of fire protection at their mill property at Victoria, B.C. The system will include a sprinkler fed from a 50,000 gallon tank, also 1500 ft. of 8 in. steel main which will be laid entirely around the plant and connected with the city's salt water high pressure system. This will permit of the installation of eight hydrants in addition to three which have already been installed on the British Columbia Electric Company's salt water system and four fresh water hydrants and one salt water hydrant of the city service located outside the mill property. Independent of the city hydrants, the company, in case of fire, will have eleven high pressure hydrants with a capacity of twenty-two streams of water.

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2″ x 9″ & 2″ x 10″

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5th Quality of same also.

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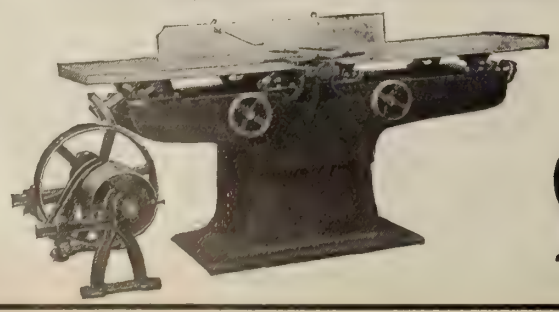

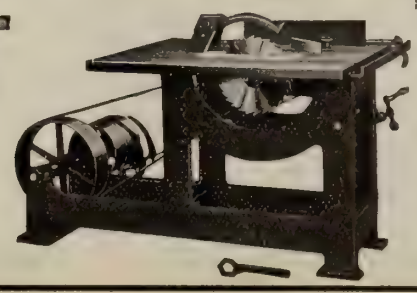

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BAND SAWS—20, 26, 32, and 36-inch
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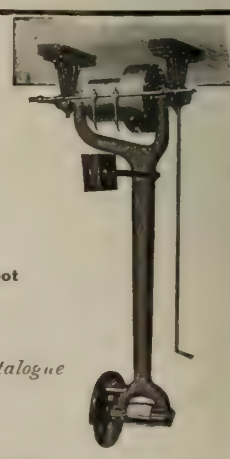

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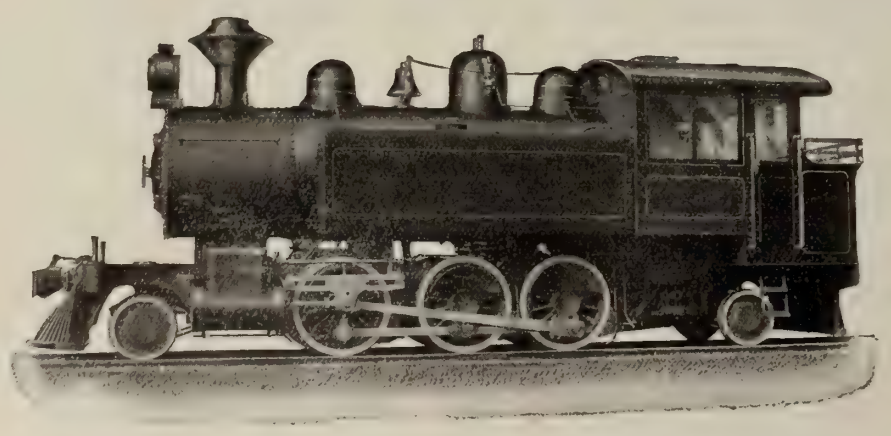

Nature of the service.
Capacity of the cars and weight of train.
Character of track—is it new or old.
Length of haul.
Is time an important factor.
Do you want a quick locomotive or a big puller.
Distance from base of supplies and quarters for the men.
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All these items and more should be considered.
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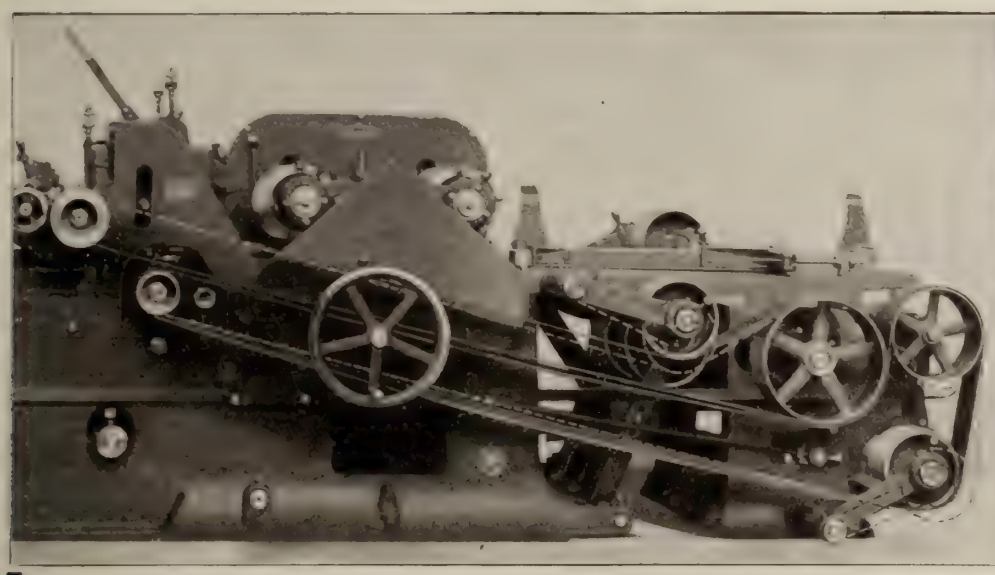
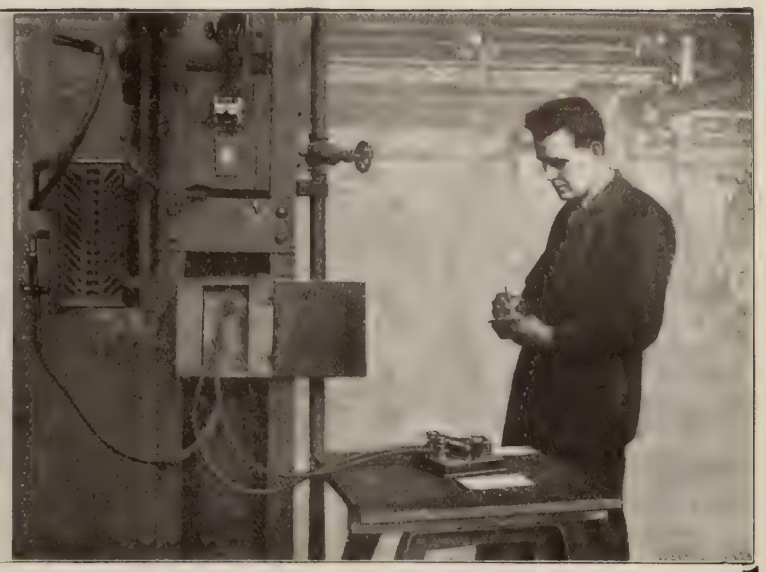


Showing Action of Gravity Tighteners on Slack Side of Belts



Power Test on Gravity and Rigid Tighteners

Save Power and Belt Bills By Avoiding Fixed Strains

THE power test made on a Berlin Matcher, as illustrated above, showed that it requires 15 to 20 H. P. more to start the machine with rigid tighteners on driving belts than with Berlin gravity tighteners. The test proved beyond question that gravity tighteners save power—that they save belt bills, wear on the matcher, and prevent hot boxes by not keeping belts under a continued abnormal strain. Yet gravity tighteners give the maximum pull for every pound of power applied.

With rigid tighteners, belts must be made tight before starting for then the strain is greatest. They never have a chance to relieve heavy strain — are kept stretched even though the necessary strain is less after the machine is running. Gravity tighteners simply take up the slack under any pull. They allow the belt to resume its normal condition immediately when the strain of starting the machine or of a heavy cut is over.

The dotted lines in the left hand picture show the action of the gravity tighteners during a heavy cut. The weight of the pulleys keeps the belt just sufficiently tight to prevent slipping. Contrast this with the rigid tightener which must keep the belt tight enough all the time to make the heaviest cuts.

Lightest Running Matchers

Berlin High Efficiency Matchers are the most powerful, fastest, and lightest running ever built. They are equipped with gravity tighteners on the slack side of all belts and automatic takeup boxes on side and cutter head spindles.

The machine is easy to operate and take care of. Working parts and adjustments are easily and quickly reached.

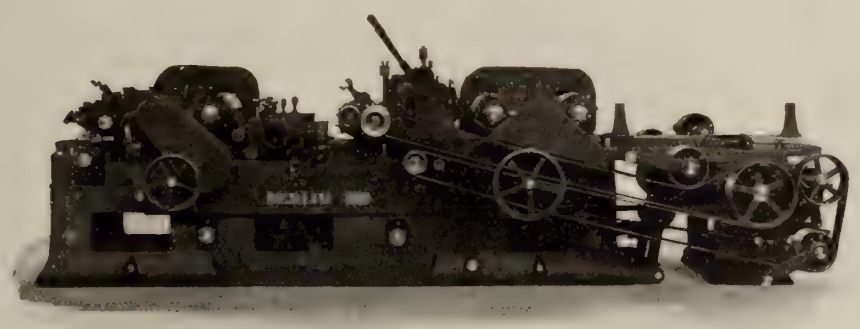
The lack of strain from belts, and the smooth running boxes keep the heads perfectly balanced. They produce a finish on stock that is unequaled. Patterns always meet association standards.

Berlin a Money Maker

Berlin High Efficiency Matchers cut producing costs 40 per cent. to 60 per cent. and save 10 per cent. to 30 per cent. in grades. They are practical insurance against mis-manufactured stock losses.

With our new automatic feed table one man can feed 250 feet and more per minute. He simply throws the boards on the table lengthwise and it takes care of them. A matcher equipped with one of these devices does the work of 4 old-type machines at a saving in grades.

Mills in every woodworking section are finding them a good investment. Write to-day for further data on the new Berlin.



A 10-page circular of the several models of this machine sent upon request.

Berlin Machine Works, Beloit, Wis.

Largest Manufacturers of Wood Working Machinery in the World

Canadian Plant: Hamilton, Ontario.

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$60 00	65 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better..	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better ..	56 00	60 00
1½-in. No. 1, 2 and 3 Cuts ..	48 00	50 00
2-in. No. 1, 2 and 3 Cuts ...	48 00	50 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	24 00	26 00
1 x 6 common and dressing ..	27 00	29 00
1 x 8 common and dressing ..	27 00	29 00
1 x 10 common and dressing..	30 00	32 00
1 x 12 common and dressing ..	39 00	41 00
1 x 10 and 12 mill cull stocks—		22 00
1-in. mill cull sidings		19 50
2 x 10 common		28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	22 50	23 50
1 x 10 inch box and common.	24 00	25 00
1 x 12 box and common	27 00	29 00
1 in. mill run sidings	24 00	26 00
1-in. mill run shorts		20 00
1-in. deal cull sidings		16 00
1-in. flooring		28 00
1-in. mill run Norway		22 00
2-in. mill run Norway		25 00
Norway, c and cf 1-in.	34 00	35 00
Norway, c and cf 1½-in.	35 00	38 00
Norway, c and cf 2-in.	33 00	35 00
Spruce mill run	21 00	22 00
Spruce mill culls		18 00
Clear in. B.C. cedar, kiln dried.	55 50	65 50
Douglas Fir		
Dimension Timber up to 32 feet:		
8, 10x10, 10x12, 12x14, 12x12, 12x14, 14x14, 14x16		35 00
8x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 14x18, 16x18 18x18, and 20x20		35 50
6x14, 8x14, 12x18, 18x20		36 00
6x16, 8x16, 10x18, 12x20, 14x20, and 16x20		36 50
10 x 20		37 00
6 x 18, 8 x 18		37 50
6 x 20, 8 x 20		38 50
Lengths over 32 ft. take the following advances: 33 to 35 ft., 50c.; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5		
Fir flooring, edge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		45 00
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 00
1½-in. No. 1 4-ft. pine lath..		4 50
1½-in. No. 2 4-ft. lath		4 00
1½-in. 32-in. pine		1 60
1½-in. No. 1 4-ft. hemlock lath		3 75
1½-in. mill run hemlock lath.		3 50
X pine or cedar shingles		1 05
XX pine or cedar shingles ...		2 25
XXX pine or cedar shingles ..		3 20
XX B. C. cedar shingles		2 40
XXX 6 butts to 2-in.		3 40
XXXX 6 to 23-16-in.		3 52
XXXXX		3 75
Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.		17 50
1 x 6 6-in. x 9 to 16 ft.		21 00
1 x 8-in. x 9 to 16 ft.		22 50
1 x 10 and 12 in. x 9 to 16 ft.		23 00
1x7, 9 and 11 in. x 9 to 16 ft.		20 00
1-in. No. 2, 6-ft. to 16-ft.		16 50
2x4 to 12-in., 12 and 14 ft. ...		22 00
2x4 to 12-in., 18 ft.		22 00
2x4 to 12-in., 20 ft.		24 00
2 x 4 to 12-in., 22 ft.		27 00
2 x 4 to 12-in., 24 ft.		28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		17 00

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	55 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4.....	48 00
Ash, brown, common and better ...	37 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1sts and 2nds, 4/4	35 00
Birch, No. 1, com. and bet., 4/4....	30 00
Birch, 1sts and 2nds, 6/4 and 8/4 ..	38 00
Birch, 1sts and 2nds, 10/4 and 12/4..	42 00
Birch, 1sts and 2nds, 16/4	44 00
Basswood, 1sts and 2nds, 4/4	38 00
Basswood, No. 1 com. and bet., 4/4.	33 00
Basswood, No. 2 and 3, common...	17 00
Basswood, 6/4 and 8/4, 1sts and 2nds	42 00
Basswood, 6/4 and 8/4, com. & bet.	37 00
Basswood, No. 2 common and better.	29 00
Soft elm, 1sts and 2nds, 4/4	36 00
Soft elm, No. 1 com. and bet., 4/4 ..	29 00
Soft elm, No. 2 and 3, common	16 00
Soft elm, 6/4 and 8/4 1 and 2	38 00
Soft elm, 1sts and 2nds, 6/4 x 8/4 ..	50 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	31 00
Soft maple, com. and better, 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	34 00
Hard maple, 1sts and 2nds, 4/4	34 00
Hard maple, common and better, 4/4.	27 00
Hard maple, 12/4 & 16/4, 1sts & 2nds.	43 00
Red oak, plain, 1sts and 2nds, 6/4 & 8/4	60 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	65 00
White oak, plain, 1sts and 2nds, 4/4.	55 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	60 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	70 00
White oak, ¼ cut, 1sts and 2nds, 4/4..	86 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	90 00
White oak, ¼ cut No. 1 common...	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up $53 00		55 00
1¼-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up ..	40 00	45 00
Pine good strips:		
1-in.	45 00	47 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	50 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	38 00	40 00
1-in. x 4-in. to 6-in.	30 00	35 00
1¼-in. and 1½-in.	48 00	53 00
2-in.	52 00	56 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings ..	33 00	35 00
Pine, No. 1 dressing strips ..	26 00	31 00
Pine, No. 1 dressing shorts ..	22 00	26 00
Pine, 8 s.c. and better, 12 ft. to 16 ft.	25 00	26 00
Pine, 7 up s. c. siding 1-in...	22 00	25 00
Pine s. c. sidings 1½ & 2-in...	29 00	32 00
Pine, s. c. strips 1-in.	18 00	20 00
1¼, 1½ and 2-in.	24 00	27 00
Pine, s.c. shorts, 1 x 4 to 6 in.	16 00	18 00
Pine, s.c. and bet. 1 x 5	22 00	25 00
Pine, s.c. and bet. 1 x 6	23 50	25 00
Pine, box boards:		
1"x4" and up 6'-11'	13 00	14 00
1"x3" to 6", 12'-16'	16 00	18 00
1" x7" and up 12'-16'	18 00	19 00
Pine shorts 6'-11' 1"x10' ...	20 00	21 00
1x9 and 9 No. 1 barn	29 00	30 00
O. culls r & w p	11 00	13 00
Red Pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	15 00	16 00
1"x4" and up, 12'-16'	16 00	18 00
1"x9"-10" and up, 12'-16'.	18 00	19 00
1¼"x7" 8-9" and up, 12'-16'	18 00	20 00
1¼"x10" and up, 12'-16'.	19 00	21 00
1½" & 2"x12" & up, 12'-16'	24 00	25 00
Spruce 1-in. clear (fine dressing and B)	24 00	27 00
Hemlock 1-in. cull	10 00	12 00
Hemlock 1-in. log run	13 00	18 00
Hemlock 2x4, 6, 8, 10, 12/16'	15 00	18 00
Tamarac	13 00	15 00
Basswood log run, dead culls out	22 00	25 00
Basswood log run mill culls out	26 00	30 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
Pine, s.c. and better, 1x7	21 50	23 00
Pine, s.c. and better, 1x8	23 00	25 00
Pine, s.c. and better, 1x9 ...	23 00	25 00
Pine, s.c. and better, 1x10 ...	25 50	27 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	15 00	18 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	11 00	13 00
Lath per M:		
No. 1 white pine 1⅜-in. x 4-ft.	3 75	4 00
No. 2 White Pine	3 25	3 50
Mill run white pine	3 00	3 25
Spruce, mill run 1½-in.	2 75	3 00
Red pine mill run	3 00	3 25
Tamarac mill run	1 25	2 00
Basswood, mill run	2 50	3 00
Hemlock, mill run	2 75	3 00
32-in. lath	1 60	1 80
Pine Shingles		
xxxx, 18-in.	3 00	4 00
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	2 75	3 25
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

	cts.	
First class Ottawa waney, 18-in. average, according to lineal	85	90

Oak—Michigan and Ohio

By the dram, according to average and quality	62	70

Elm

By the dram, according to average and quality, 40 to 45 feet	80	85
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash

13 inches and up, according to average and quality	25	30
Average 16 inch	30	40

Birch

14 inch	18	20
15 inch	22	24
16 inch	26	28
18 inch	32	30

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up.	$18 00	19 00
Oddments	15 00	16 00
Boards, 1 and 2 in.	15 00	16 00

Birch Planks

1 to 4 in.	16 00	17 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in. .....$.54 00	
1 in., 8 in. and up wide	67 00
1¼ and 1½ in. and up wide	69 00
2 in. and up wide	72 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	67 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	47 00
1¼ in., 8-in. and up wide	57 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide....	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	48 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide..	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	22 00
1-in. x 5-in.	24 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	30 00
1-in. x 12-in.	35 00
1-in. x 13-in. and up	35 00
1¼, 1½ and 2-in.	32 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	20 00	22 00
No. 2, 1¼, 1½, 2-in.	18 00	22 00

Mill Culls

Mill run culls, 1-in.		17 00
1, 1¼, 1½ and 2-in.		18 00
No. 2	16 00	17 00

Lath

No. 1, 32-in. pine	1 50
No. 2, 48-in. pine	3 75
No. 3, 48-in. pine	3 00
No. 1, 48-in. pine	4 25
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

..PINE, SPRUCE, TAMARAC & LARCH..

Mountain Stock Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch $18 50	
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1 ....$33 00	
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch $20 00	
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1 ....$33 00	
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft. ...		29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft. $21 50	
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
.....	27 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring.	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch $31 00	
No. 2 common pine, 10 inch	25 00
No. 3 common pine mixed widths...	20 00
No. 4 common pine, mixed widths ..	14 50
No. 5 common pine, mixed widths ...	10 00

SHINGLES

XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4 ....$94 00	
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00

(Continued on page)

The Value of a Reputation

The greatest business asset which any firm can possess is a reputation for the continued maintenance of superior quality, efficiency and high standards for their products.

A forceful illustration of this statement is continued in the simple lines of a postal recently received requesting a copy of a book we publish.

"Dear Sirs:

Knowing the value of 'DISSTON' tools from the practical experience of twenty-five years' use, I feel sure that your 'Farm Tool Book' would contain something that would enable me to take better care of and get better results from the use of 'DISSTON' tools and implements."

Only a few words—yet note the ***confidence*** they show in everything that is DISSTON. The reputation which has been built up for this name during the many years it has stood for all that is best in saws and tools carries with it all the recommendation a man requires.

"Here is a new tool," says the dealer.

"Is it a reliable tool?" inquires the customer as he takes it in hand to examine.

"There is the DISSTON Brand," quickly answers the dealer in a tone which implies plainly. That settles it!

And it does. A sale is more easily made when a DISSTON Brand saw, tool or file is before the customer, for, to quote another correspondent.

"Ever since we were boys, we rember the good old DISSTON Saws, the kind with the apple wood handle and the little notch filed in the heel by which many woodworkers could tell the genuine from the ***imitation.*** And even as we are dictating this letter we hark back a good many years to the time we heard of a 66-inch DISSTON Saw, tuned up 700 revolutions per minute and wading through Pennsylvania white pine on a 6-inch feed. ***There was quality in those saws.***"

There's quality in them ***to-day***—quality that has kept pace with the ever increasing requirements. We know the value of a reputation and guard ours jealously.

HENRY DISSTON & SONS

INCORPORATED

REPRINTED FROM
THE DISSTON CRUCIBLE
OF APRIL, 1912

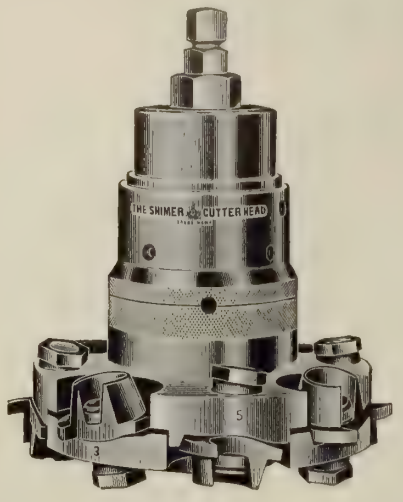
Keystone Saw, Tool, Steel and File Works
PHILADELPHIA, PA.

BRANCH HOUSES: { Chicago, Boston, Cincinnati, New Orleans, Memphis, San Francisco, Seattle, Portland Spokane, Toronto, Vancouver

USE THE SHIMER CUTTER HEADS

For Flooring, Ceiling, Siding, Ship Lap, Jointing, Double Ceiling, Doors, Sash, Blinds, etc.

Made of steel Forgings, they represent the greatest possible strength in compact and workmanlike manner, embodying the vital principles of clearance to all leading Bit Points. The alternate and shearing effect of the cut reduces to a minimum the tearing-out tendency of cross-grained lumber. Cutters have exact shape in their exterior circles, and uniform product is maintained indefinitely without extra trouble or expense.



The Shimer Limited, with Expansion, Fig. 628. Groove Head with 8 Bits and self-centering and spindle clamping features. Price $36.23 each, complete.

The Shimer Limited in solid section, Fig. 625. Groove Head with 8 Bits and the self-centering and spindle clamping features. Price $33.50 each, complete.

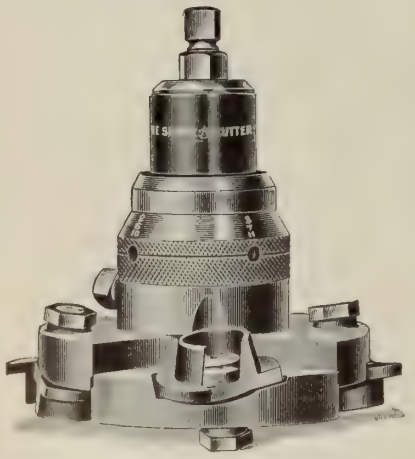
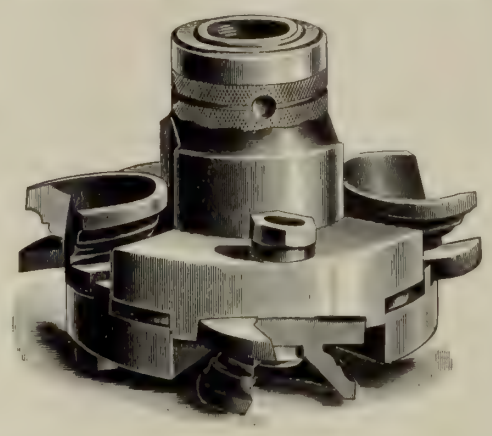


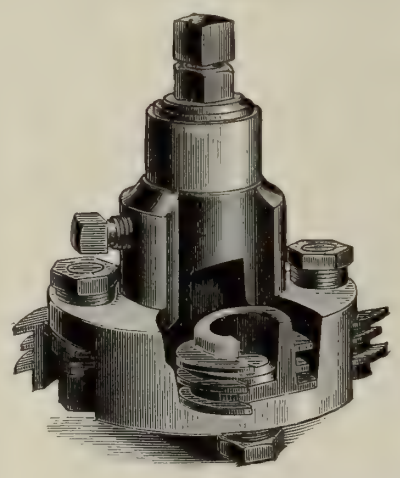
Fig. 203, Popular Expansion Groove Head with 4 bit seats, complete, net $20.48. Made also with 6 and 8 Bits to each Head.

The Shimer Door and Sash Heads



Save the filing to shape at each sharpening of the cutters. They are made per order, carry in their outline the perfect counterpart of the work, thus by simply filing the Bits and setting them to the gauge the fitting of the manufactured parts is assured.

A solid Door Head with Bits to work 1 to 1¼ inch Doors costs only $18.03, and an Expansion Head only $20.63. A solid Sash Head to mould 1 to 1¼ inch Sash, complete with Bits, costs only $16.91—an Expansion Head fitted out complete only $19.51. $62.87 will give you an excellent solid section outfit, including Door Cope Heads and Sash Cope Heads. If you want the very best with Expansion the cost will be only $68.07.



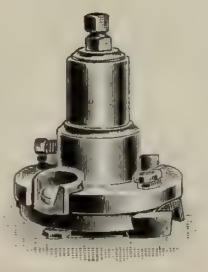
Double the Capacity of Your Matcher or Moulder By the use of the Shimer Double Ceiling and Double Flooring Heads.

Run your stock with double tongue and groove and then re-saw. 100 per cent gain in output for an investment of only $40.94 and upwards.

The Bits on the Shimer Double Heads mark the saw cut line of division on the stock so that the sawyer can at once detect any variation of the saw and correct it as the board is passing through.

These Heads are not an experiment. We have made them for years and they are in daily use in the best mills of this and other countries. You will find them very complete and practical tools, carrying the Shimer guarantee to do as represented or no sale.

Heads for making Ship Lap



The Shimer Cutter Heads for Ship Lap are so proportioned in the Bits and their seats that a perfect draw cut is made. They work interchangeably with our matcher Heads and always produce good work.

Price, per set, complete, $33.64 to $38.48, according to thickness of cut.

Extra Bits for making Wainscoting on these Heads $1.95 each.

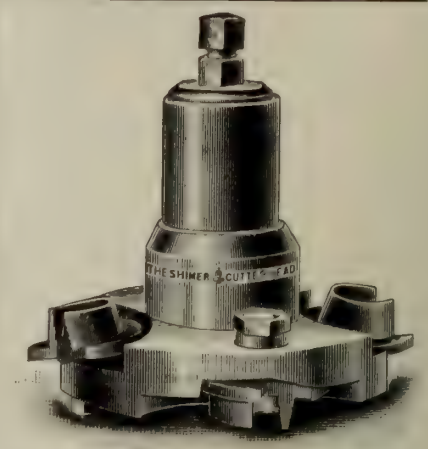
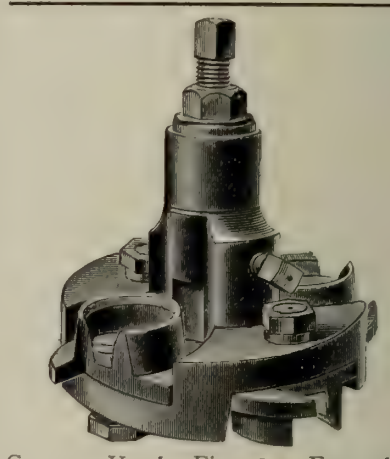
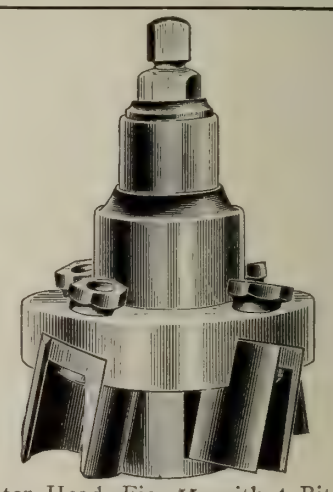


Fig. 23, a Popular Solid Groove Head with 4 bit seats, complete, $17.87. Also made with 6 or 8 Bits to each Head.



Groove Head, Fig. 2. For plain matching of tongue and groove joint, complete with Bits, $13.00.



Jointer Head, Fig. 55, with 4 Bits in line of work. Also made with 6 and 8 Bits to each Head. With 4 Bits $16.64.

Our Bedee Knives, recommended by users as the best thin steel knives on the market, can be furnished in any length or thickness on short notice. Write us about your requirements.

Samuel J. Shimer & Sons, Inc.

Milton, Pa., U. S. A. - - - Galt, Ontario, Can.

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OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

We cater specially to the lumbering industries

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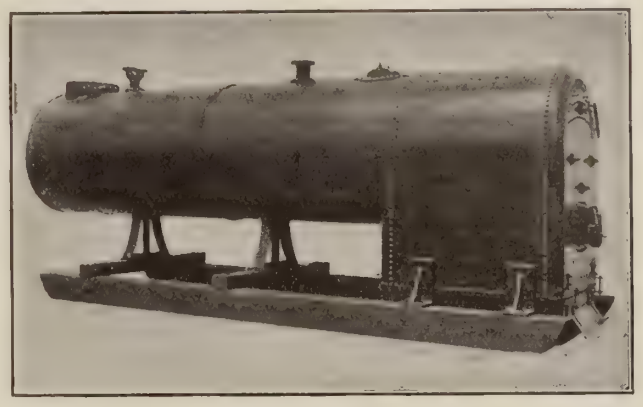


Locomotive Boiler on Skids

The Great Pulling Power of a Little "Want Ad"

A "want" advertisment is a small thing both in size and in cost, but through a a small "want ad" great things have often arisen.
A subscriber to the Canada Lumberman and Woodworker recently inserted a small ad in the "WANTED and FOR SALE" Department of this paper and received

47 REPLIES

Have you some odd lots of lumber that you would like to move quickly?
Have you some second hand mill machinery you wish to sell or exchange?
Do you want to buy some special lots of lumber or machinery?
If so **YOU NEED** the assistance of the "Wanted and For Sale" Department.
Let us assist you in filling your next want.

Canada Lumberman and Woodworker

Toronto

LOGGING TOOLS

Soo Line Logging Tools—The Favorite of the Practical Lumberman

Write us your requirements

Canadian Logging Tool Company

SAULT STE. MARIE, ONTARIO

Oats Oats Oats

I make a specialty of Oats in bags

Get my prices before you buy

Alexander Butler

Traders Bank Building, TORONTO, ONT.

CURRENT LUMBER PRICES—Continued

No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00
No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	46 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	30 00
No. 2 Barn 1 x 10	32 00
No. 3 Barn 1 x 6 and 8	23 00
No. 3 Barn 1 x 10	25 00
Box 1 x 6 and up	22 00
Box 1 x 10	23 00
Box 1 x 12	25 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

White Ash

1st and 2nd, 1 inch	40 00	42 00
1¼ to 2 inch	44 00	46 00
2½ to 4 inch	48 00	58 00
Strips	22 00	24 00
Common and culls	14 00	22 00

Black and Brown

1st and 2nd, 6 inch up	40 00	42 00
Common good culls	14 00	20 00
1st and 2nd 6 inch and up, red.	40 00	42 00
1st and 2nd, white, 6 in. & up.	30 00	32 00
Common and good culls	16 00	18 00

Elm

1st and 2nd, rock, 6 in. and up	34 00	38 00
Common and culls	16 00	20 00
1st and 2nd, soft, 6 in. and up	28 00	32 00
Common and culls	13 00	18 00

Maple

1st and 2nd hard	26 00	30 00
Common and culls	14 00	22 00
1st and 2nd, soft	26 00	28 00
Common and culls	14 00	22 00

BOSTON, MASS.

White pine uppers, 1 to 2 in.		100 00
Selects, 1 to 2 inch		90 00
Fine common, 1 in.		72 00
Fine common, 1¼ to 2 in.	74 00	75 00
No. 1 Cuts 1 in.		45 00
No. 1 Cuts 1¼ to 2 in.	58 00	60 00
No. 2 Cuts, 1 in.	35 00	37 00
No. 2 Cuts, 1¼ to 2 in.	45 00	48 00
Barn Boards, No. 1, 1 x 12	51 00	52 00
No. 1, 1 x 10		39 00
No. 1, 1 x 8		38 00
No. 2, 1 x 12		43 00
No. 2, 1 x 10	35 00	36 00
No. 2, 1 x 8	34 00	35 00
No. 3, 1 x 12	33 00	34 00
No. 3, 1 x 10	28 00	30 00
No. 3, 1 x 8	28 00	29 00
Canadian spruce boards	23 00	24 00
Spruce, 10 & 12 in. dimension.	26 00	27 00
Spruce, 9 in. and under dimen.		25 00
10 and 12 in. random lengths, 10 ft. and up	24 00	25 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	22 50
All other random lengths, 7" and under, 10 ft. and up	21 00	22 00
5-in. and up merchantable boards, 8 ft. and up, p 1s		21 50
Vermont spruce boards, matched		23 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		21 00

1⅛-in. spruce laths	4 50
1½-in. spruce laths	3 85

New Brunswick Cedar Shingles

Extras	$3 60	$4 00
Clears	3 25	3 60
Second clears		2 75
Clear whites		2 30
Extra 1 s (Clear whites out)		1 65
Extra 1s (Clear whites in)	1 50	1 60
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 50	4 00
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 35
Red Cedar Perfection, 5 butts to 2¾		4 90
Washington 16-in. 5 butts to 2-in. extra red cedar		4 10

The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30 Maple, $3.25 per M. ft.; 1/24 maple, $3.50 per M. ft.; 1/20 maple, $3.75 per M. ft.; above cut to dimension.

3/16 3-ply maple, 1 st. good, 3¼c. per ft.; ¼ 3-ply maple, 1 st. good, 3½c. per foot, all f.o.b. Jamestown, N.Y.

We Can Supply From Stock

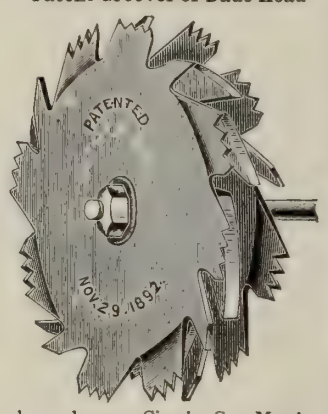
Atkins, Hoe and Disston CIRCULAR SAWS, SAW BITS and SPRINGS.
Rubber and Leather Belting, BEST BRANDS.
DISSTON "BEAVER" and SIMONDS CROSS CUT SAWS. PEAVIES and STOCKS, CHAIN, IRON and STEEL, SINGLE and DOUBLE BIT AXES, Etc,

Douglas & Co., Limited
Victoria Street, AMHERST, N. S.

HUTHER BROS.
Hollow Ground Combination Tooth Mitre Saw

For either Rip or Cross Cutting
Will cut equally as smooth in either Ripping, Cross-cutting or cutting at an angle of 45 degrees, with grain of wood.

Patent Groover or Dado Head



Can be used on any Circular Saw Mandre
For cutting any width groove from 1/8" to 2" wide. Will cut either with or across the grain (Sent on approval).

Allow us to quote Prices on Saws for any special work that you wish to do.
HUTHER BROS. SAW MFG. CO., Inc., ROCHESTER, N. Y.

International

Preparations for Horses are all sold on a Spot Cash Guarantee

Let us figure on furnishing you the following supplies for the coming season.

International Stock Food
We guarantee that your horses will do more work and keep in better order on less feed if they get International regularly.

International Silver Pine Healing Oil
Especially recommended for Sores, Bruises, Kicks, Inflammation and all flesh wounds.

International Worm Powder
Will quickly expel all kinds of worms.

International Distemper Cure
For Coughs, Colds, and Distemper.

International Colic Cure
Guaranteed to cure Colic in ten minutes.

International Compound Absorbent
Greatest Curb cure on Earth.

International Gall Cure
Cures while horses work or rest.

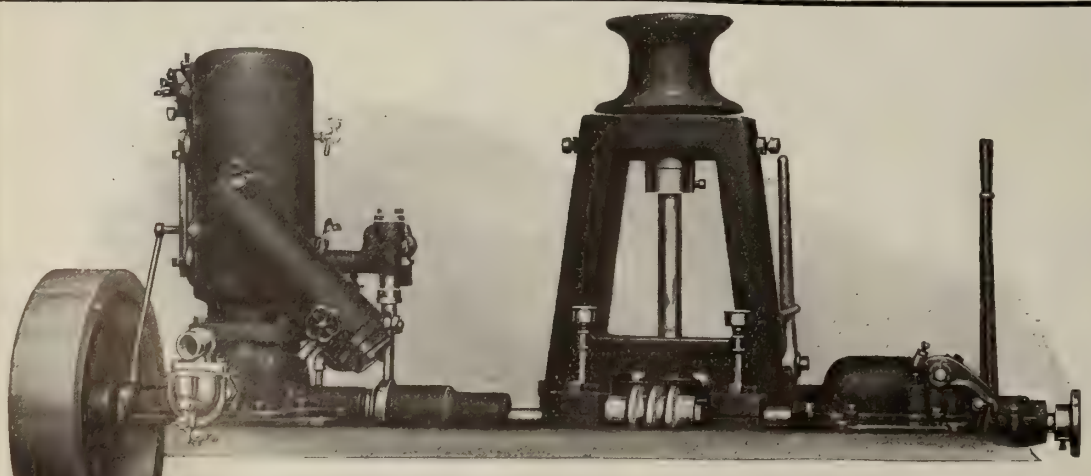
International Foot Remedy
Cures Foot diseases, keeps the hoof soft, elastic and tough

International Harness Soap
Gives new life to old harness.

All our goods are guaranteed to give satisfaction.

Write for Special Prices

International Stock Food Co., Limited
Toronto, Ont.



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Winch $30.00

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will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25′ punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. Machinery $205.00. Complete punts $375.00. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 H.P.

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Making a Specialty of 1-20" and 1-8"

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English Brown Oak Butts—Sawed to order **Circassian and Turkish Walnut Logs**

High Grade Native Cabinet Woods and Veneers

Memorandum of Stocks on Hand and Prices on Application

The Martin-Barriss Co., Importers, Cleveland, Ohio

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MANUFACTURERS AND BUILDERS OF
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CANDY PAILS	FISH KITS
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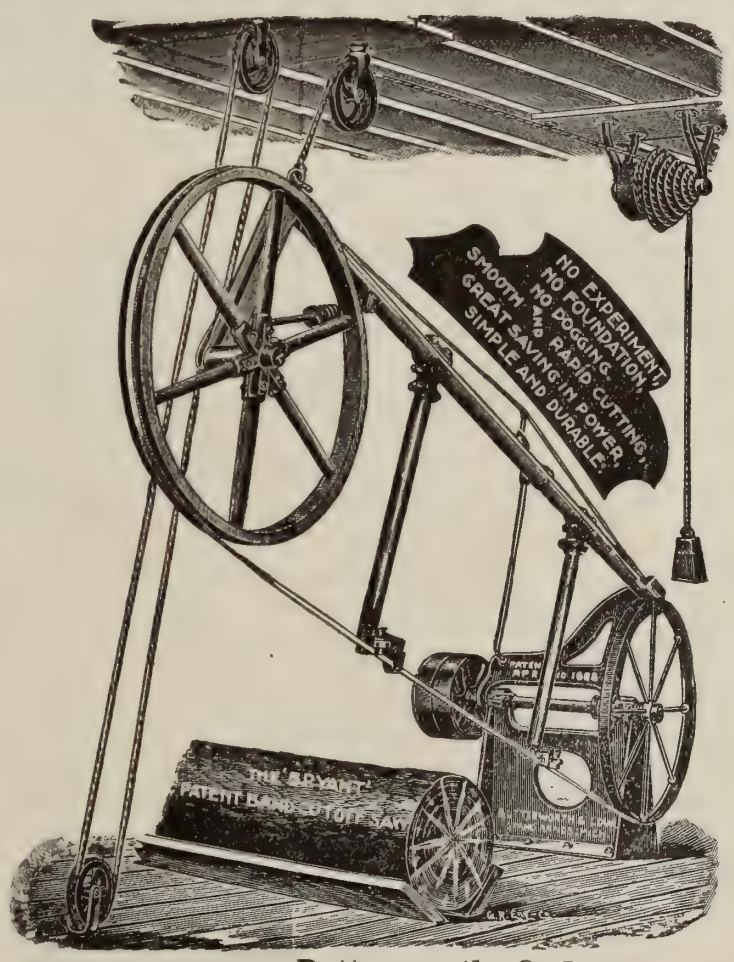
COMPLETE PLANTS
FOR THE MANUFACTURE OF
BARRELS, KEGS, STAVES AND HEADING
OUR SPECIALTY.
FOR PRICES AND FURTHER PARTICULARS, ADDRESS
THE PETER GERLACH Co. CLEVELAND. O. U.S.A.

An Up-to-date Cross-cutting Machine



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Let a Cyclone blow the dust from your mill. Blows the dust in any direction and as far as desired.

Saves the price of one man and will pay for itself in one month's time.

Will not clog or choke up—Built especially for the Circular Saw Mill.

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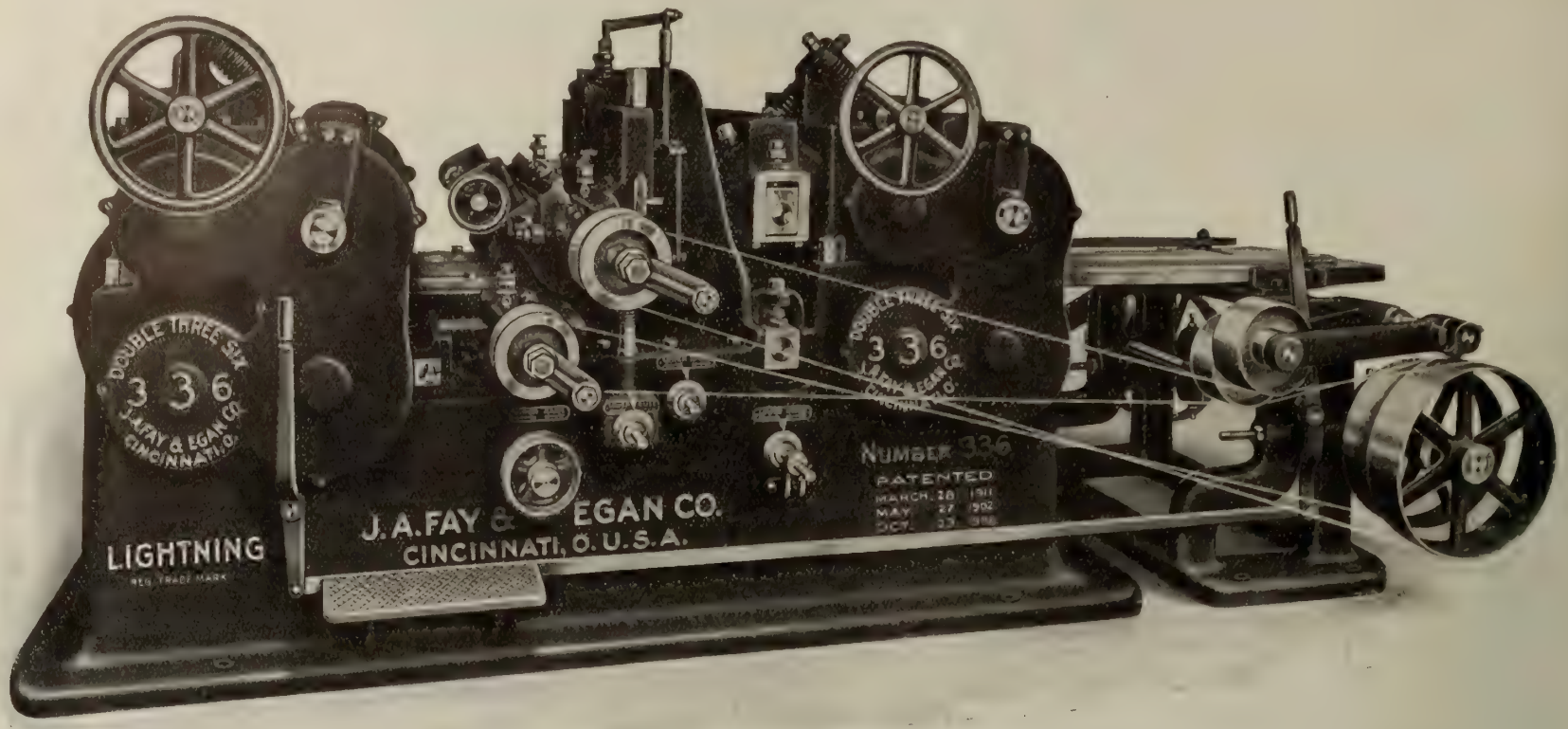

Get away from high manufacturing cost and the loss represented by your degraded lumber—use a FAY-EGAN "LIGHTNING" No. 336 Double Surfacer—

—Why be satisfied with surfacing your lumber at 75 ft. per minute, a high percentage grading No. 2 or lower, when other manufacturers are surfacing at 200 ft. per minute, every bit grading No. 1?

—Why continue to operate under a handicap of high manufacturing costs, when you can save 40 to 50% by using a Fay-Egan 336 Surfacer?

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—If you want to get away from this handicap you will find the 336 an interesting proposition.

—Since a No. 336 with one operator will do as much as your three 75 ft. machines, you eliminate right in the beginning the wages of two operators, this saving alone practically paying the cost of installation in a year's time.

—Where you now have six heads to keep in order, you will have only two, and it can be done much easier as they are ground and jointed right on the machine. Instead of buying three sets of belt you buy one set. Your big repair bills will be a thing of the past as the 336 is so powerful that breakages are practically impossible, even gear wear being reduced to almost nothing by the use of gears cut from the solid with rolling contacts and running in grease. Where you lose time for oiling and adjusting, you will again save by the sight feed lubricating system and the adjusting arrangements all on the outside. And in addition, you save the space and transmission of two machines.

—These are strong claims, we admit, but we can prove them. Give us a chance. We'll send you full particulars with samples of knotty and cross grained stock run at 200 feet per minute, upon receipt of your request.

Did you get a copy of our new handy reference Catalogue No. 86?
If not send for it today—Yours for the asking.

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Manufacturers of WOODWORKING MACHINERY The "LIGHTNING" Line

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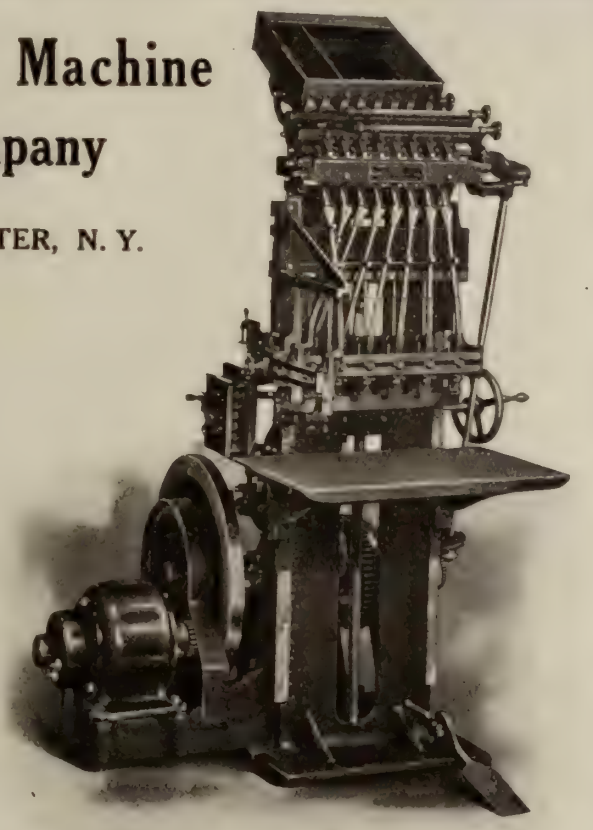

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Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

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is the answer for belting troubles in wet places.

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Dolphin Waterproof Belting is guaranteed to meet all these requirements.

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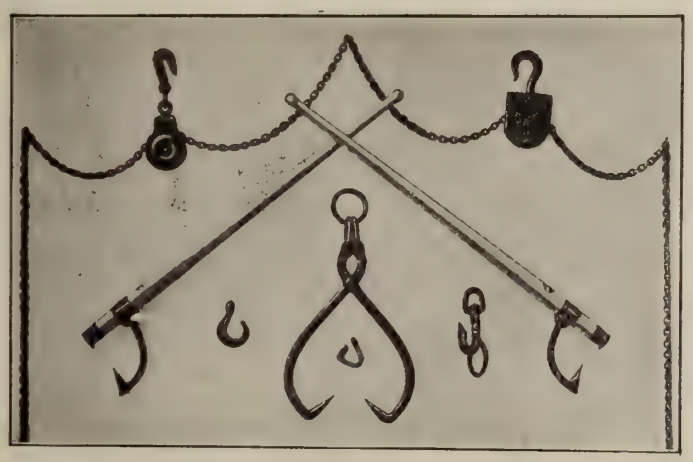

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Pink's Lumbering Tools

and if they cannot supply them order direct, and you will get the best tool made

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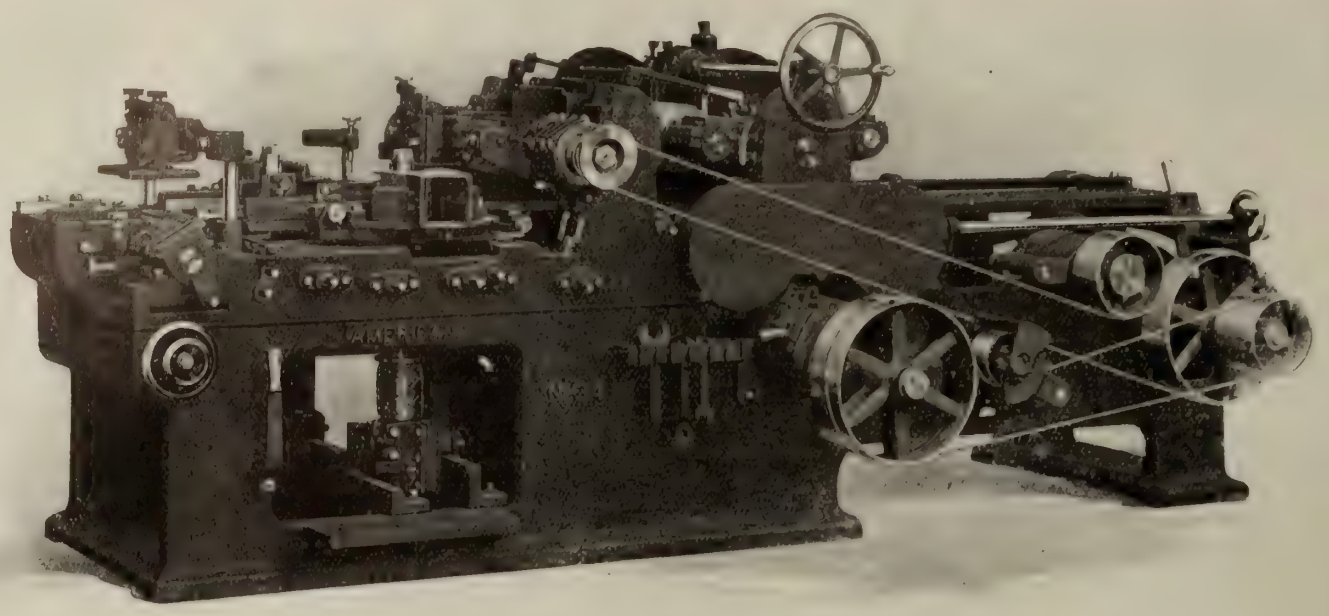
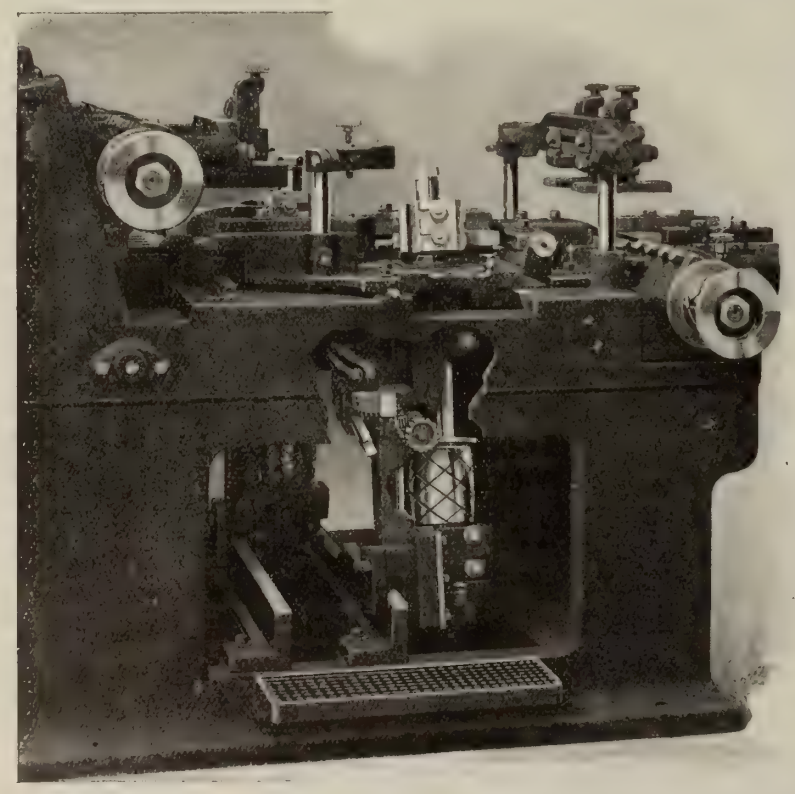


American *No. 34* Inside Moulder

This is a brand new machine. The general design and form of construction of the frame; the direct and simple system of gearing; the massive bed plate supporting the matcher legs; the side clamping boxes for both cutter heads and side head journals; the accurately fitted and easy adjustments throughout, are all features that make this the most up-to-date ***Inside Moulder*** on the market today.



The sectional view shows the angle adjustment of Matcher Legs, and the vertical adjustment of side spindles.

We have a handsome book which describes this machine fully. Let us send you one.

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Marks that remain vivid and wear like iron are a real satisfaction to the man who handles lumber. The metallic pigments, like graphite, of DIXON'S LUMBER CRAYONS offer marvelous resistance to all kinds of weather conditions. Their marks are often visible after six months of severe exposure to sun and storms.

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have always remained the recognized standard because of their one, uniform and dependable quality; their convenient and uniform shape and size and because of the careful selection of materials used in their manufacture. DIXON'S LUMBER CRAYONS are made in nineteen grades and colors, including black (six grades), red (two grades), blue (two grades), green, white, yellow, brown, terra cotta, violet, pink and orange. Some are made to fill particular needs—let us tell you more about them. Get acquainted.

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Forester and Surveyor

Mapping and Surveying of Wild Lands
Estimation of Timber and Working Plans

(Formerly forestry manager of the Appleton & Sewall Co.)

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"John Bull" *Larrigans*

Wear Like Iron

WE tan the leather these larrigans are made from and know they will stand all kinds of wet and rough usage when properly cared for. We put a counter stiffener in our larrigans and sew it in with the leg when soled and heeled—a very durable feature in our goods.

Next time you buy larrigans see that you ask for **"John Bull."**

R. M. Beal Leather Co.
Limited
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Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

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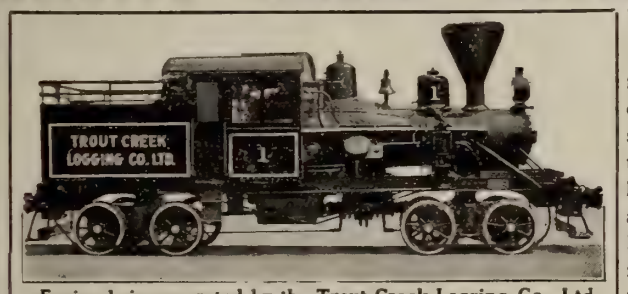

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Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

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Consignments of heavy horses received regularly from the best shippers of heavy horses in Ontario.

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Loading chutes at Barn Doors via all railways,

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The Strongest Wood Pulley Made. NAILED and GLUED

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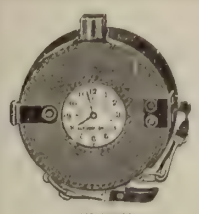


CLOCK

Watch Your Watchman

Not to keep track of **him** but for the **safety of your building.** With

The Hardinge Watchman's Clock

you can see at a glance if your building is being properly patrolled at night.
The Hardinge System is guaranteed accurate—reliable—fool-proof.

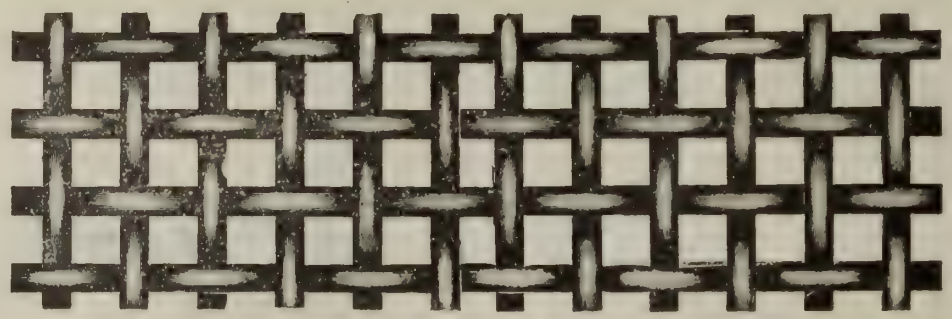
New catalogue sent on request

STATION

Hardinge Bros. (Inc.)

3133-3141 Lincoln Ave. - Chicago, Ill.

STEEL WIRE CLOTH



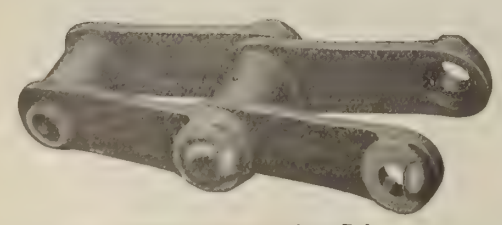
FOR REFUSE BURNERS

Write for sample and full particulars

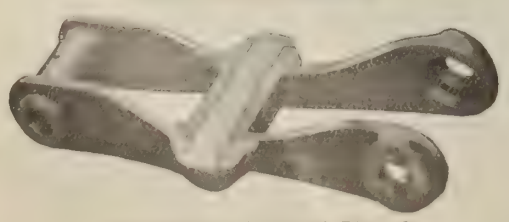
Alligator Ropes **Saw Mill Carriage Ropes**

The B. Greening Wire Co., Limited

Hamilton, Ont. - Montreal, Que.



Griplock Riveted Chain Belt



Cross Section of Griplock Riveted

No More Breakdowns—No More Delays

This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock.** **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

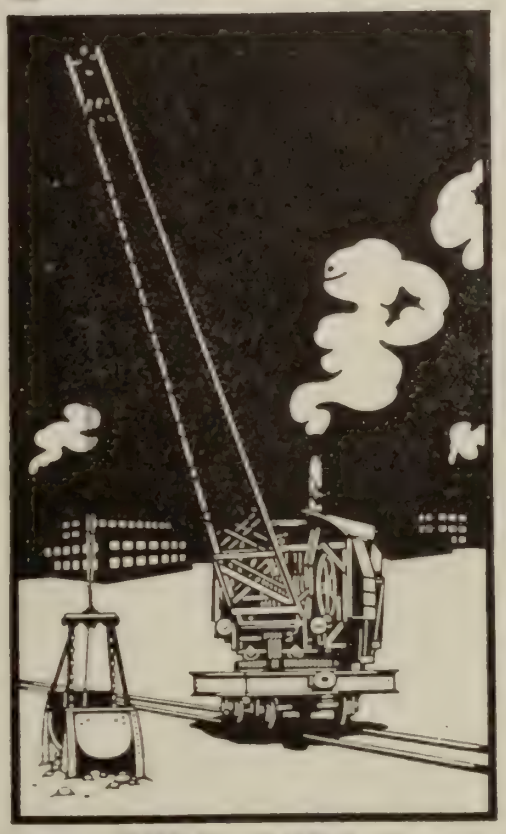
Sold by **The A. M. ELLICOTT CO., Montreal, Que.**

Elevating, Conveying and Transmission of all kinds a specialty

WIRE ROPE

Kilindo

WIRE ROPE



For
Cranes
Derricks
Elevators
Mines
Cargo
Falls
Etc.

Does not Rotate With or Without The Load

All Sizes In Stock

The Dominion WIRE ROPE Co., Limited
MONTREAL
The General Supply Company of Canada, Ltd., Agents for Manitoba

MAPLE LEAF BELTING

Strong
Waterproof
True
Running

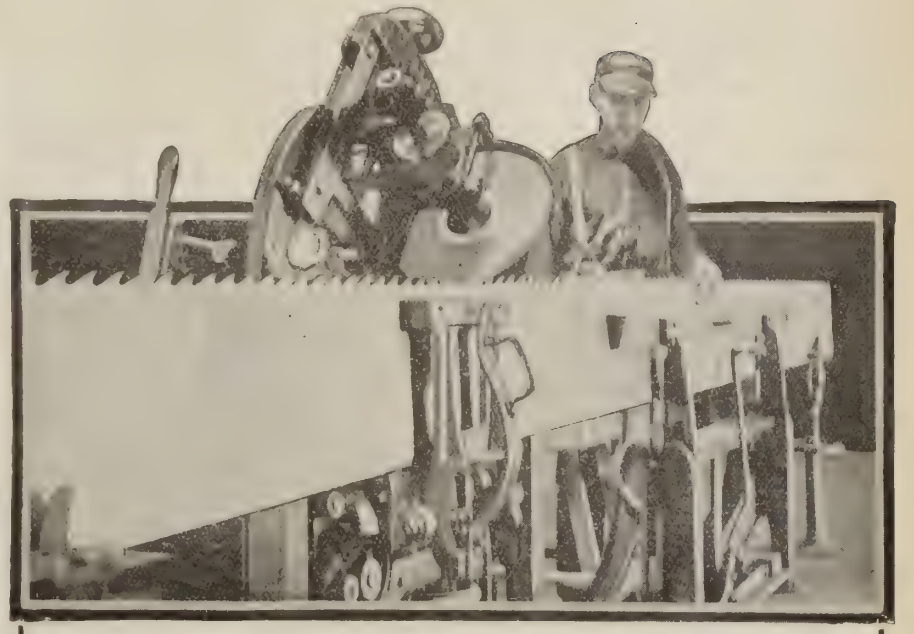
For
Indoor or
Outdoor
Work

¶ Maple Leaf is the most economic and efficient belting for power transmission and conveying, etc.

¶ It costs only half as much as leather and 25 per cent less than good rubber belting.

Write for sample and prices to the sole manufacturers

DOMINION BELTING CO.
HAMILTON, CANADA



So Can Your Filers

THERE are hundreds of saw filers throughout the country who turn out better gummed saws, in less time, at less wheel cost than ever before because they are using

Aloxite Saw Gumming Wheels

They find that the Aloxite Wheel cuts fast, clean, cool—there is no screeching or undue friction; the wheel cuts quietly, without case hardening the saw or drawing the temper. Then too, the filer can force the Aloxite Wheel to the limit, and it will cut its way free, hold its shape, show economy in long life. Aloxite Saw Gumming Wheels show the way to better Saw Service.

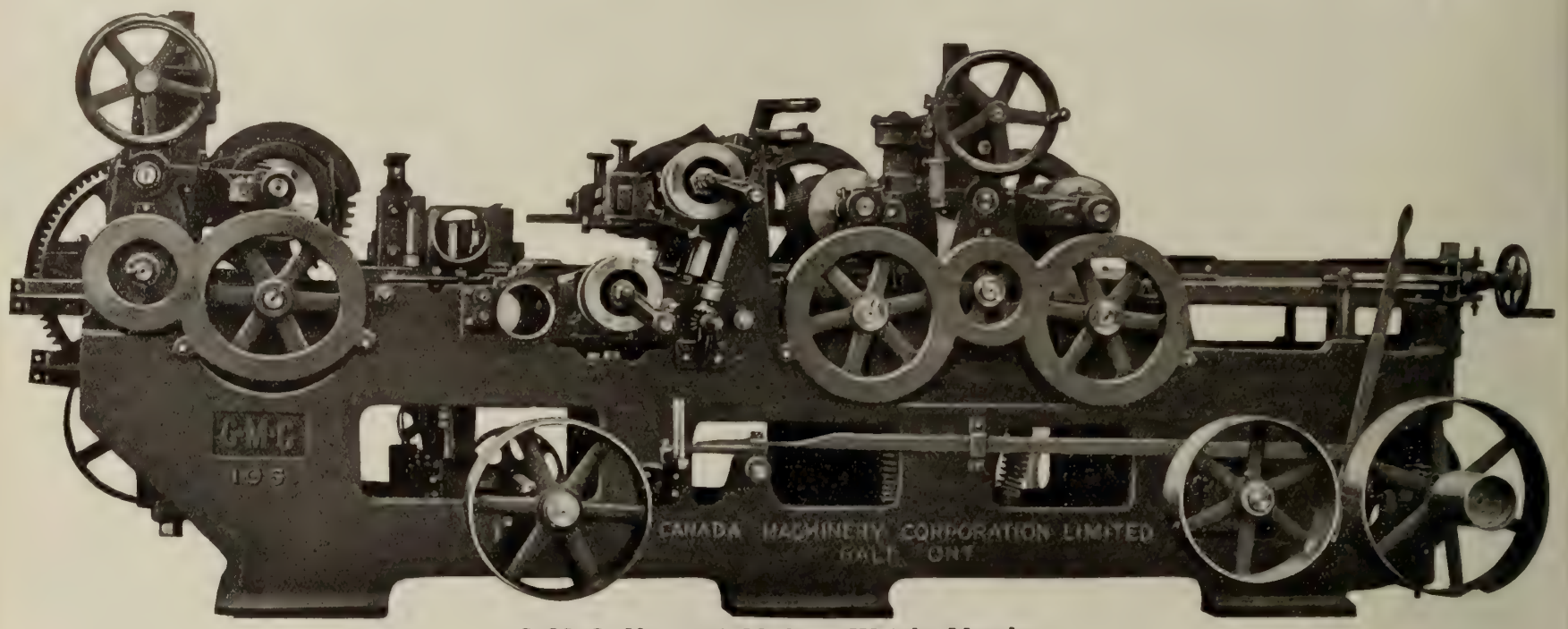
Let us send a Trial Wheel

The Carborundum Co.
Niagara Falls, N.Y.

No. 105 MATCHER

C.M.C.

No. 105 MATCHER



C. M. C. No. 105 Medium Weight Matcher.

Our No. 105 Matcher is not our heavy duty fast feed machine but is a high grade medium weight matcher. It is a general purpose machine and for work up to 100 feet per minute; is without an equal.

It is supplied with five rates of feed from 45 to 100 feet per minute.

Bulletin No. 105 fully describes this machine and will be gladly sent on request.

Have you our complete catalogue? If not let us send you one.

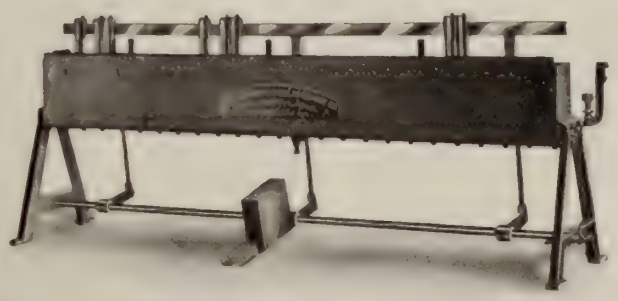
We Make the Most Complete Line of Woodworking Machinery in Canada

Canada Machinery Corporation Limited

GALT, ONTARIO

Look at the Picture!

Look at the Names!



The picture is of our stile gluer.

The names are of some of its users. Some of them have sent in duplicate and triplicate orders unsolicited. Are they the kind that would do that if the machine was not a money saver?

It Glues the Whole Stile in a Second.

Foster-Lotham Mills, Oshkosh, Wis.; Morgan Company, Oshkosh, Wis.; R. McMillen Co., Oshkosh, Wis.; Radford Bros. & Co., Oshkosh, Wis.; Curtis & Yale Co., Wausau, Wis.; Curtis Bros. & Co., Clinton, Iowa; Estate James Davidson, Ottawa, Ont.; Roach & Musser Sash and Door Co., Muscatine, Iowa; Allen Mfg. Co., Shreveport, La.; Rock Island Sash & Door Co., Rock Island, Ill.; Riverside Lumber Co., Calgary, Alta.; Rat Portage Lumber Co., Winnipeg, Man.; Cream City Sash & Door Co., Milwaukee, Wis.; Enochs Lumber & Mfg. Co., Jackson, Miss.; United Sash & Door Co., Wichita, Kans.; Hardwood Products Co., Neenah, Wis.; Vance Redwood Lumber Co., Eureka, Cal.; Chehalis Fir Door Co., Chehalis, Wash.; Farley & Loetscher Mfg. Co., Dubuque, Ia.; Robinson Mfg. Co., Everett, Wash.; Southern Mfg. Co., Gadsen, Ala.; Waco Sash & Door Co., Waco, Texas; Pacific Mfg. Co., Santa Clara, Cal.; Standard Lumber Co., Sonora, Cal.; Geo. W. Smith Co., Philadelphia, Pa.; Fox Bros. Mfg. Co., St. Louis, Mo.; Weed Lumber Co., Weed, Cal.; Cedar Creek Mill Co., Brewton, Ala.

MANUFACTURED BY

The Dauber-Bell Machine Co., Oshkosh, Wis.

Dowel Door and Chair Machinery

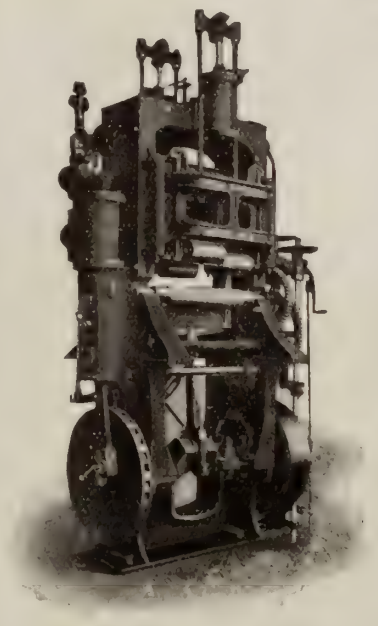
WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips **Cedar Siding** **Shiplap**
Silo Stock **Door Stock** **Box Lumber**
Boards

from cants and flitches, from either hard or soft woods.



ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES—taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install ecomony by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

Think it Over Carefully, then Write us for Details.

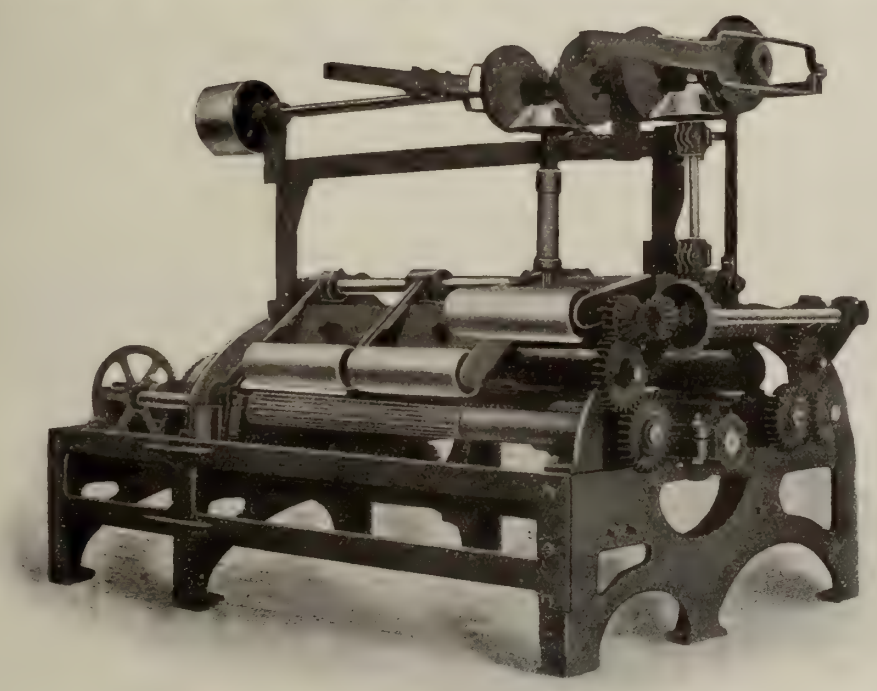
"The Gang cannot Overslab."

Wickes Brothers

410 White Building — — SEATTLE, WASH.

Head Office. Saginaw, Michigan, U. S. A.

Mowry's Jumbo Edger



Our latest model is an improvement on the one illustrated here

Mowry's "Jumbo" Combined Gang and Edger is the most useful mill machine on the market to-day.

It embodies every detail of construction essential to an adequate gang edger. ¶ We have some very flattering testimonials for our "JUMBO."

Mandrel: 4½ inches by 10 feet 6 inches long.

Drive Pulley: 20 inches, 20 inches.

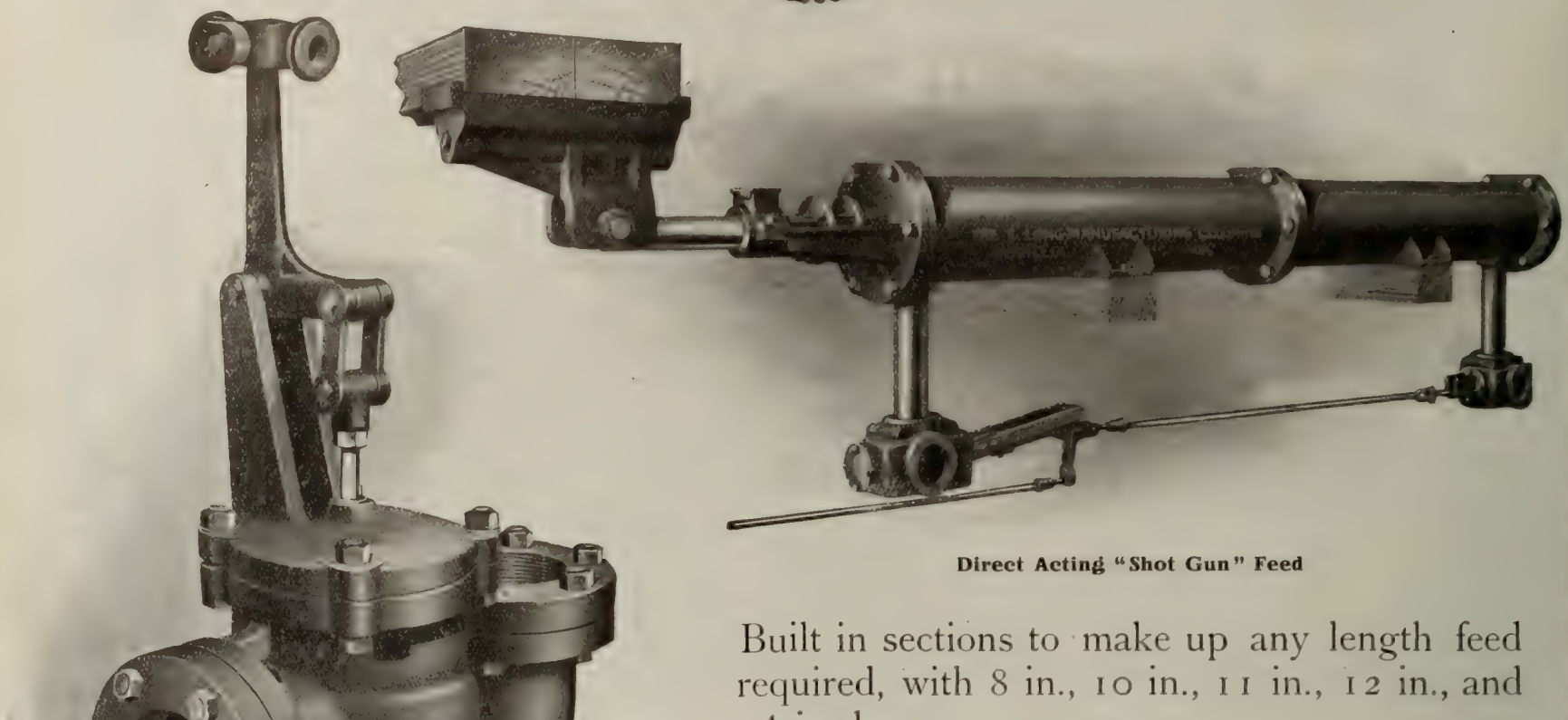
Saws: 2 movable saws on edger side (more if desired) 8 stationary saws on gang side, 2 water boxes.

Let us quote you when you are in the market for Saw, Lath or Shingle Mill Machinery or Repairs.

MOWRY & SONS, Gravenhurst, Ontario

The Mark of *Quality*

THE E. LONG MANUFACTURING Co. SAW MILL MACHINERY ORILLIA, CANADA



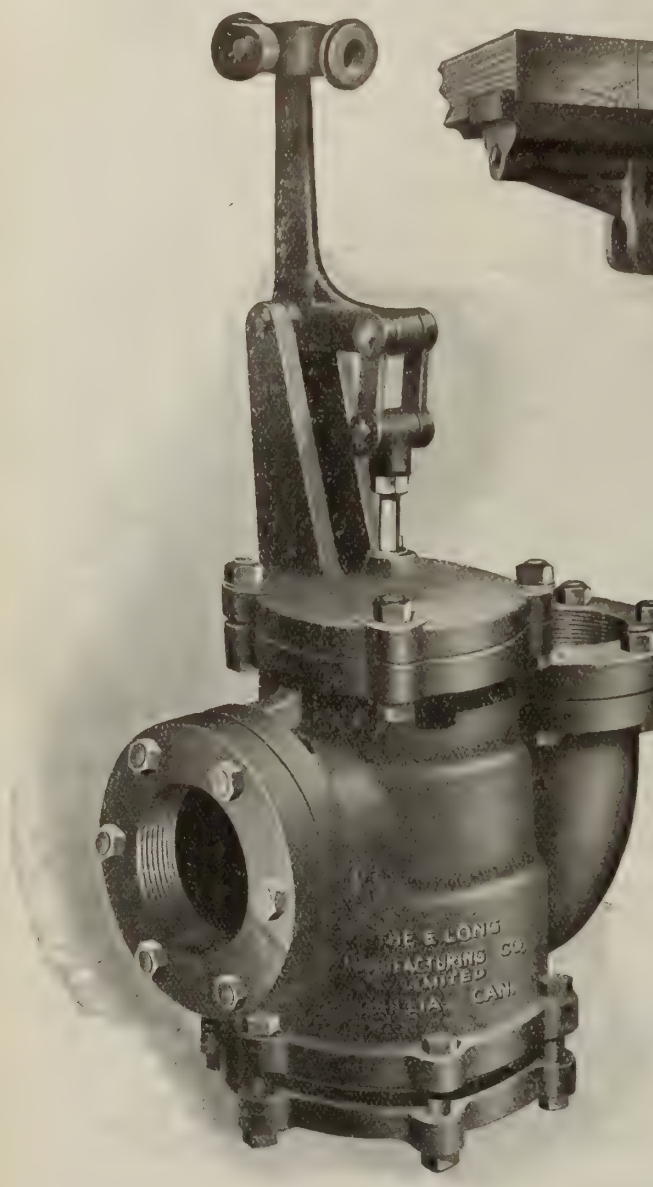
Direct Acting "Shot Gun" Feed

Built in sections to make up any length feed required, with 8 in., 10 in., 11 in., 12 in., and 14 in. bore.

We fit our feeds with **any style of valves required.**

Our "Gun Shot" feeds are money makers wherever used.

FULL PARTICULARS ON APPLICATION



Vertical Steam-Feed Valve

We guarantee that our Valves will not stick or kick. They are perfectly steam tight and are without exception the most economical valves manufactured.

We not only manufacture a complete line of steam feeds, but also a complete line of steam actuated machinery for saw mills of any capacity.

Double Model "D" Valve

The E. LONG MANUFACTURING CO., LIMITED, Orillia, Ont.

AGENCIES:

MONTREAL—Williams & Wilson, Ltd.
WINNIPEG—Stuart Machinery Co., Ltd.
EDMONTON and CALGARY—Gorman, Clancey & Grindley, Ltd.
VANCOUVER—Robert Hamilton & Co.

ROSSING MILL EQUIPMENT

THIS is the interior of a Rossing Mill we built some years ago for the International Paper Company, at Chatham, N. B. It contains 26 Waterous Barkers in all and turns out some 400 cords of barked wood every ten hours. We can show you dozens of similar installations.

We build equipment for any size Rossing Mill. It is not a new line or a side-line with us. We have made a special study of the handling and cutting of pulpwood and have had thirty years experience building machinery to do it most economically and efficiently.

We manufacture:

Pulp Log Haul Ups, Cutting Up Rigs, Slasher Tables, Barker Attachments, Barkers, Pulp Wood Splitters, Conveyors and Elevators, Engines and Boilers.

These machines are the last word in up-to-date Rossing Mill equipment. They are turned out in a separate department by an engineering staff and skilled mechanics who have specialized in this work.

We have records in this office of some of the most successful Rossing Mill installations operating in Canada to-day. These are at your disposal. Write us and let us show you how to build "The Rossing Mill Up-to-date."

The Waterous Engine Works Co., Ltd.

BRANTFORD, CANADA

Winnipeg, Manitoba **Vancouver, B. C.**

$5,000,000.00

worth of mixed metals is what we market every year

PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.

Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

We solicit your patronage

HOYT METAL CO., Toronto, Canada

New York, N. Y. **London, England** **St. Louis, Mo.**

BATTS LIMITED

WEST TORONTO

MANUFACTURERS OF

Staved Columns
Veneered Doors
Newel Posts
Sashes - Flooring
Trim
Pine Doors and Frames
Turned Newel Posts and Balusters
Cypress Greenhouse Material

BATTS LIMITED

MANUFACTURERS

WEST TORONTO, ONT.

THE LEATHER BELT THAT'S KNOWN OUR "EXTRA"

THE J.C. McLAREN BELTING CO. OAK EXTRA TANNED EST. 1856

MONTREAL TORONTO
WINNIPEG VANCOUVER

The J.C. McLaren Belting Co.
Limited
General Mill Supplies **MONTREAL**

H. Walters & Sons

Limited

Head Office and Factory HULL, CANADA

VANCOUVER, B.C.
1142 Homer Street

Branches:

WINNIPEG, MAN.
214 Princess Street

THE LARGEST FACTORY FOR LUMBERING TOOLS IN CANADA. :: :: ::

"Send for New Illustrated Catalogue"

Manufacturers of all kinds of

Saws, Axes, Axe Handles, Lumbering and Logging Tools, Machine Knives

Canada Lumberman & Wood Worker

Time is Money

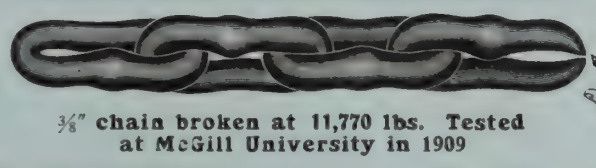
The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.



A Test Like THIS

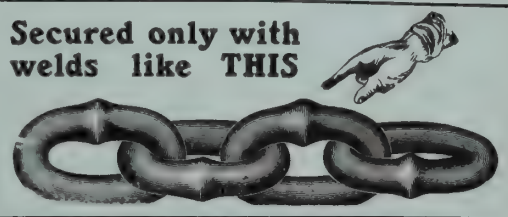
⅜" chain broken at 11,770 lbs. Tested at McGill University in 1909

25% More Weld = 25% More Strength = 25% More Wear

Tested Steel Chain made at **St. Catharines, Ont.**

old by **McKinnon Chain Co.** BUFFALO, N.Y.

Secured only with welds like THIS



UNHARMED BY WATER, STEAM OR CHANGE OF TEMPERATURE

Dick's Belts are guaranteed to run through water, or steam, if necessary, without injury and to be unaffected by changes in temperature. They have been applied with signal success to every variety of work for which belts are used. Saw Mill owners find Dick's Balata Belting the cheapest when length and quality of service are considered. Catalog No. 17 on Transmission Appliances tells all about it.

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
Steel Pulleys Saw Mill Supplies Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults

Montreal Toronto St. John, N.B. Winnipeg Calgary Vancouver 4

"CAMEL HAIR" "CAMEL" BRAND BELTING — TRADE MARK REG.

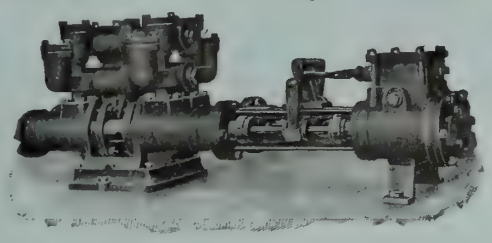
THE BELT YOU WILL EVENTUALLY USE

We guarantee our "Camel" Hair Belting will outlast, transmit more power, prove easier on bearings, stretch less than any other class of belting running under same conditions, and if our claims are not borne out by results we are ready at all times to make any rebate on the cost of our belt that will make it cost no more than any other style of belting. Service considered.

F. REDDAWAY & COMPANY

MONTREAL Sole Makers TORONTO

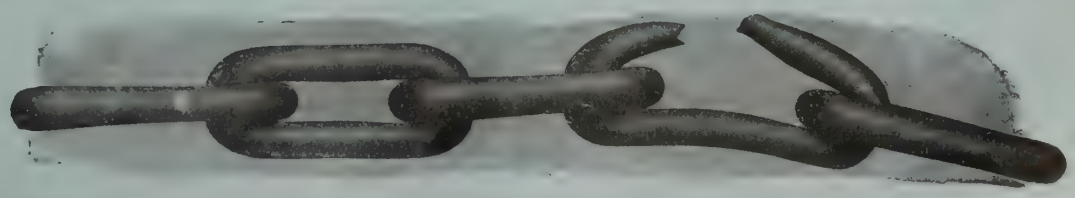
Steam and Power Pumps, Condensers, Travelling Cranes.



The Smart-Turner Machine Co., Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"



Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

Alphabetical Index to Advertisers, page 64

Fully Guaranteed Sawmill Machinery

This is the only kind for you to buy to ensure satisfactory and continuous operation throughout the entire sawing season.

All our sawmill machinery is sold on an absolute guarantee of proper operation and perfect construction.

Naturally, therefore, we buy only the highest grade materials and use only skilled workmen, and everything is built under the most careful supervision.

These things are necessary to produce well built machinery, but they would be useless without proper design—and the "know how" of designing sawmill machinery can only come after long experience.

We have such complete confidence that our machinery is correctly designed that our guarantee is:

"These machines are guaranteed against defective materials and workmanship for the period of one year, and their proper and successful operation is also absolutely guaranteed. Should any parts fail through defects, we will replace them free of charge, or should any machine not work properly, we will remove it at our expense and refund any part of the purchase money which may have been paid to us."

This guarantee goes with all our machines and we have never had to take back a standard machine yet.

And back of this guarantee is our fifty years' experience building sawmill machinery for stationary mills only.

It will pay you to buy your machinery from us this winter.

William Hamilton Co., Limited

Peterborough, Ontario

VIEW OF OUR MILL AT CACHE BAY, ONT.

PINE LUMBER

Cut from the best pine timber in Ontario is what we have to offer our many patrons in Canada and the United States.

We don't want to dissapoint you therefore anticipate your requirements as far ahead as possible for

Norway or White Pine Lumber, Railroad and Structural Timbers, Flooring, Ceiling, Moulding, Siding, Cross-arms, etc.

Place your order now for next year's dimension stock

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Dry Lumber For Sale

View of Saw Mills, Pembroke, Ont.

White and Red Pine, Spruce, etc.

100,000 ft.	5/4 x 4/7	x 12/16 S.C.W.P.
200,000 ft.	6/4 x 4/7	x 12/16 " "
100,000 ft.	1 x 8 & up	x 12/16 " "
100,000 ft.	5/4 x 8 & up	x 12/16 " "
200,000 ft.	6/4 x 8 & up	x 12/16 " "
200,000 ft.	2 x 8 & up	x 12/16 " "

(All Box Out)

ROUGH OR DRESSED

Fast Feed Planing Mill in Connection.

Send us your enquiries

The Colonial Lumber Co., Ltd.

Pembroke, Ont.

WHITE AND RED PINE

SCENE IN THE SHIPPING YARDS

For prompt shipment we offer the following stock subject to prior sale :—

2 x 5 /up x 12/16 Red Pine
Mill Run 400,000 ft. B. M.

2 x 5 /up x 12/16 White Pine
Mill Run 300,000 ft. B. M.

1 x 12 x 12/16 White Pine
Mill Run 600,000 ft. B. M.

Write us your requirements

JOHN LUMSDEN, Lumsden's Mills, Quebec

RED GUM SAP

The Kind That Satisfies

May we quote you on a car or two of the following finely manufactured, band saw stock—free from twist and stain, and running at least 60% 14 and 16′ long.

Our Price is Attractive

110,000′ 4/4 1/s and 2/s Red Gum
100,000′ 4/4 No. 1 Common Red Gum
140,000′ 4/4 1/s and 2/s Sap Gum
75,000′ 4/4 No. 1 Common Sap Gum

We Operate Our Own Mill

HAMILTON H. SALMON & CO.

88 Wall Street, NEW YORK CITY

Branch Office: 71 South Street, Buffalo
Mr. Frank T. Sullivan, Manager

Yards: Buffalo, N.Y.,
North Tonawanda, N.Y., Allendale, Pa.

Ontario Sash and Door Association General Meeting

King Edward Hotel, Toronto, Friday, December 13th, at 11.30 a. m.

Business of vital importance to the sash and door industry of the province will be discussed at this meeting. Every manufacturer of these products is invited to attend.

W. D. Cargill,
President

F. W. Brennen, Secretary
P. O. Box 107,
Hamilton, Ontario

JOHN GILLIES
President

DAVID GILLIES
Vice-President

J. S. GILLIES
Sec.-Treas

Established
1873

GILLIES BROS. Limited

Mills & Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

Cedar Shingles and
Railway Ties

RED PINE, SPRUCE, HEMLOCK, CEDAR

Planing Mill, Yard & Office
MORRISTOWN, N.Y.

CAPACITY 40,000,000

New York City
Guy E. Robinson, 1123 Broadway

The

Georgian Bay Lumber Co.

Limited

Waubaushene, Ontario

Manufacturers of High Grade

Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

White Pine
Red Pine
Spruce
Lumber and Lath

Office, Castle Building 53 Queen St. Ottawa, Can.

F. N. WALDIE, President. R. S. WALDIE, Vice-President. W. E. HARPER, Secretary.

The
Victoria Harbor Lumber Company
Limited

Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont. Head Office, 12-14 Wellington Street East, TORONTO, ONT.

I Told You So!!

This is the worn out song you will hear next spring if you do not provide NOW for your early spring requirements in

Hemlock and Spruce

We have a large stock of good Cull Hemlock and Cull Spruce to dispose of from 1″ to 3″ thick.

Norway Pine
Cedar Shingles
Spruce Lath

We can also fill orders, in any quantity, of **White Pine**—the finest well-watered stock obtainable. Always ready for shipment. We can dress or resaw.

☞ *Write for prices, etc.* ☜

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 1200 Claremont Ave., MONTCLAIR, N.J.

Hope Chambers, OTTAWA, CAN., Head Office

Timber Limits for Sale
on Georgian Bay

The undersigned offer for sale in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; Tug Scow and other Lumber Equipment, including boom chains, plows, sleighs, etc.

The Limits, part of which have recently been sold, include: 440 square miles of licensed and deeded Pine, Hemlock, Spruce, Birch and other timber. The licenses from the Ontario Government include all timbers and are not restricted for time. Government dues are as follows: Saw Logs, White Pine, $1.50 per M. ft., B.M. Saw Logs, Hemlock, Tamarac and other woods 75c. per M. ft. The timber is situated in the Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street. The Canadian Pacific, Canadian Northern and Grand Trunk Railways run through the limits, which makes some of the parcels offered for sale particularly desirable for small mill owners.

A circular giving full information, maps, terms and conditions of sale will be furnished upon application to

The Parry Sound Lumber Co., Limited

1315-20 Traders Bank Building, TORONTO, CANADA

Quincy Adams Lumber Co., Limited

MANUFACTURERS AND WHOLESALERS OF

White Pine, Birch, Spruce and Hemlock

Mills at
LONGFORD
KOSHEE
RAVENSWORTH

Special Price on Dry 4/4 and 5/4 good Pine Strips and Sides, also 5 cars 6/4 Birch, Common and Better, 18" XX White Pine Shingles.

Toronto, Canada
51 Yonge Street

The Rideau Lumber Co., Limited

Trafalgar Building, Ottawa, Ont.

We have—of 1911 sawing:

1 x 4, 1 x 5, 1 x 6—12/16' S. C. and Dressing W. Pine
Factory Shorts and Sidings, 5/4" to 8/4"—12/16 "
1 x 4 and up—6/11' No. 1 Dressing and Better "

1912—1½" x 4' M. R. White Pine Lath.

JAS. PLAYFAIR D. L. WHITE

PLAYFAIR & WHITE

Manufacturers and
Wholesale Dealers

Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

Knowles & O'Neill

WHOLESALE

Lumber, Ties, Pulpwood

Etc.

COMPLETE STOCK OF
Quebec Spruce and Pine Lumber
ALWAYS ON HAND

An exceptionally nice lot of 2" Pine, well seasoned, for sale, also 1", 2", 3" Spruce, Square and Waney Spruce and Cedar.

Correspondence Solicited. Room 4, Hochelaga Bank Building **Quebec, Que.**

The Golden Lake Lumber Co.

Limited

MANUFACTURERS OF

Lumber, Lath and Shingles

Offer for Prompt Shipment

100,000 ft. 2 x 4 and up 6/11 ft. C. & B White Pine 70% 10/11 ft.
65,000 " 2 x 4 x 12/16 ft. C. & B. White Pine
20,000 " 2 x 4 x 12/16 " " "
Also 6/4 x 4/7 x 12/16 ft. Selected M.R. White Pine
6/4 x 8 x 12/16 " " " "
6/4 x 10 x 12/16 " " " "
6/4 x 12 x 12/16 " " " "
65,000 ft. 8 x 8 x 8/16 ft. Cedar

All of above, shipment G. T. R. from Golden Lake, Ontario

Head Office: - EGANVILLE, ONT.

THE trend of trade is now towards our **CUTLER** Mills, when customers want anything at **BAY** ports for water or rail delivery, and our **LUMBER** is selling itself by repeat orders from any **COMPANY** to whom we make a shipment. Our stock is **LIMITED** but we still have a goodly quantity to dispose of at prices worth while considering.

DON'T BUY TILL
YOU GET OUR
PRICES

The Eyer Lumber Co.

34 Victoria Street, Toronto
are Selling Agents

Cameron & Co, Limited

Manufacturers and Wholesale Dealers

LUMBER, LATH, SHINGLES, TIMBER, POLES and POSTS

We have to offer 1912 cut

1″ and 2″ White Pine Box and Better
1″ " " Mill Culls
1″ " " "O" Culls

Mill and Yard
OPEONGO, ONT.

Head Office
OTTAWA, ONT.

Send your enquiries to our Head Office

The McLennan Lumber Co., Limited

Everything in Lumber
Rough and Dressed
Wholesale and Retail

WRITE US FOR PARTICULARS

21 Dorchester Street West, MONTREAL, QUE.

The Hurdman Lumber Co.

OTTAWA, CANADA Limited

EASTERN

Pine, Spruce, Hemlock, Hardwoods, Timber, Lath and Shingles

WESTERN

British Columbia Timber

at Lowest Prices and any Sizes.

We are open to BUY cuts of Pine; Spruce; Hemlock; Basswood and Ash; and will be pleased to hear from manufacturers having anything to dispose of for cash, will also make contracts now for Basswood to be taken out this winter.

Pine, Spruce, Hemlock, Basswood, Lath

INQUIRE OF

C. A. SPENCER

Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles

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Toronto Representative: A. T. Dadson, 42 Duggan Ave.

Williams Lumber Company

Wholesale Dealers in

White and Red Pine, Spruce and Lath
ROUGH OR DRESSED

For 5/4 x 4/7 x 12/16 fine dressing strips
6/4 do. do. do.
8/4 do. do. do.
write us before placing your orders.

18 CENTRAL CHAMBERS - OTTAWA, ONT.

Edward Hines Lumber Co.

(Branch Office)

Parry Sound, Ont.

All grades of

WHITE PINE

and

Norway Dimension Bill Stuffs

WHITE and RED PINE LATH

WILLIAM H. BROMLEY

Wholesale Lumber

Pembroke, Ontario and Midland, Ont.

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1,00,000 ft. 5/4 x 4 and up-10/16 ft. Mill Run White Pine "Good and Shop Out," Ex. Collingwood, Ont. Satisfactory price will be quoted. Inquiries solicited. All other sizes of White Pine to offer.

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OF PENETANGUISHENE

Manufacturers of and Dealers in

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Hemlock Billstuff a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

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13 Foot and 16 Foot

Lath and White Cedar Shingles

CHRISTY-MOIR CO.

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Brockville Lumber Company

LIMITED

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Lumber, Lath, Shingles, Bill Stuff

And all kinds of SASH FACTORY and PLANING MILL GOODS.

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Selling Agency and Dealers in all kinds of

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RAILS For Tramways, Sidings, Etc. New and Second Hand

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58 Front St. W., TORONTO

Hardwood Flooring

The Celebrated Diamond Brand

End Matched, Bored, Polished and Bundled

Manufactured by

SIEMON BROS., LTD.

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Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

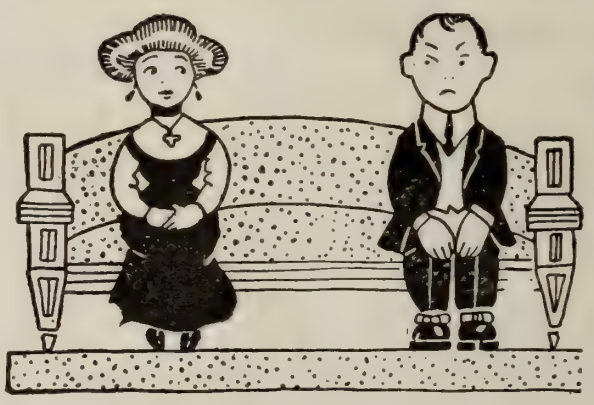
No. 3 Pine Doors

THE

Pembroke Lumber Co.

Pembroke, Ontario

Don't Hesitate



You know the old proverb "He who hesitates is lost"—Well, of course, we know that that is contradicted by the just as old proverb "Look before you leap"—The logical conclusion therefore is—"you can't do both." But that is just the trouble with many business men. They take a good look and then they hesitate. There is no need to hesitate in deciding where to purchase

Hemlock, Pine and Hardwood

You are quite safe in coming to us—we will give you the best on the market at the right price.

Write us for quotations—take a good look at our proposition then send us your order at once..Don't Hesitate.

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

We have the following stocks in good shipping condition:

1-in. Birch, No. 1 com. and bet.,	167,000 ft.
1-in. Birch, No. 2 com. and bet.,	70,000 ft.
1¼-in. Birch, No. 1 com. and bet.,	30,000 ft.
1½-in. Birch, No. 1 com. and bet.,	30,000 ft.
2-in. Birch, No. 1 com and bet.,	30,000 ft.
3-in. Birch, No. 1 com. and bet.,	30,000 ft.
1-in. Maple, No. 2 com. and bet.,	60,000 ft.
1¼-in. Maple, No. 1 com. and bet.,	70,000 ft.
3-in. S. Elm, No. 1 com. and bet.,	30,000 ft.
2-in. S Elm, No. 1 com. and bet.,	12,000 ft.
1-in. White Bass,	10,000 ft.
1½-in. White Bass.	1,000 ft.

Want to buy Elm and Hemlock?

Please let us hear from you.

The Meaford Lumber Company

Toronto Office, 539 Lansdowne Avenue.

The

North Channel Lumber Co.

Limited

Successors to

SAGINAW LUMBER & SALT CO.

MANUFACTURERS OF

Pine Lumber

Saginaw, Mich. U.S.A.

Mills at Thessalon Ont.

WE Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

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HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.

Yellow Pine Timber a Specialty.

Interior Trim Mill Work.

NIAGARA FALLS, N.Y.

The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

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LIMITED

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GEO. I. McCLURE
Wholesale Hardwood Lumber
CYPRESS and SOUTHERN PINE
Specialties
MAHOGANY. WALNUT and CHERRY
Maple. Birch and Oak Flooring
Veneered Doors, Stiles and Rails
Can ship direct from Mills or from Detroit. I want to buy Birch. Maple. Basswood, and Elm.
Office, Yards and Warehouse
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DETROIT, MICH.

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CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS
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SEND FOR CATALOGUE

Write or Wire us
PREMIER X X and X X X SHINGLES
Grades Good. *Prices Right.*
GEORGIA PINE
CYPRESS
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MILLS PRODUCTS CO.
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Saw Mill Help
Competent employees for saw mills and woodworking plants are scarce. The best of them read this paper regularly. To get in touch with good men send a "Want Ad" to the
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SPECIALTIES
Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding
James Gillespie
Pine and Hardwood
Lumber
Lath and Shingles
North Tonawanda, N. Y.

"Well Bought is Half Sold"

SPECIAL STOCK OFFER

5 Cars	1" M. R.	Red Pine
5 "	1" C. & C. F.	"
3 "	6 4 "	"
1 Car	2' "	"
4 Cars	2 x 6 8-18	"
2 "	2 x 10-18'	"
2 "	1 x 8"	No. 1 Spruce
½ Car	1 x 10 12"	" "
½ "	5 4 x 8" Sel. M. R.	W. Pine
½ "	2 x 8 " "	"

Above all in shipping condition F.O.B. Midland.
Let us have the pleasure of quoting.

Graves, Bigwood & Co.
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Pine and Hemlock Lumber
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Saddle Tank Locomotives
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Correspondence solicited
SESSENWEIN BROS.
Montreal

TORONTO WHOLESALERS

Full Stock Dry Pine and Hemlock

MILLS STILL CUTTING

Can supply Hemlock Bills
Cut to Order
Will have winter mill running to supply Timber Bills in Hemlock and Pine

The Fesserton Timber Co., Limited
15 Toronto St., TORONTO
Mills at FESSERTON, ONT.
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JOHN DONOGH & CO.

Wholesale Dealers

Have HEMLOCK and SPRUCE for sale

Full stock in all grades and sizes

B.C. Cedar Shingles - N.B. Cedar Shingles

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1205 TRADERS BANK BUILDING, TORONTO

B.C. RED CEDAR SHINGLES

Quality guaranteed. We are handling only the finest quality of well manufactured Shingles.
Quick Delivery. Keeping a number of Cars in transit at all times we are able to give almost immediate delivery
You Want Good Shingles delivered promptly.
We Want Your orders which will receive our careful and prompt attention.

WRITE, WIRE OR TELEPHONE

C. A. Larkin Lumber Co., Limited
627 Confederation Life Building, TORONTO

Do You Want a Salesman?

¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

LEAK & CO., LIMITED

18 Aberdeen Chambers
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We are in the market for Hemlock, Spruce and Hardwoods, also No. 1, 2 3 Lath.

Send us list of anything you have to offer.

Spears & Lauder

Manufacturers and Wholesale Dealers
in
Hardwood, Hemlock and Pine Lumber

We are in a position to furnish bill timbers in White or Red Pine to be cut during the present winter.

Let us quote on your requirements.

Head Office: 501 Kent Bldg., - TORONTO

The
Elgie & Jarvis Lumber Co.
Limited
18 Toronto Street, Toronto, Ont.

We are in the market for

Stocks of
Hemlock Lumber

SPECIAL VALUE

5 x 5 to 8 x 8 Qt. Cut Maple Squares
4/4" to 16 4—Maple
4/4 to 16/4 Elm (Soft)
4/4 Com. and Betr. Basswood
6/4 x 8" up 1st and 2nd Basswood
White Pine 1911 Cut
Hemlock for 1913 delivery

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C. G. ANDERSON LUMBER CO.
Manning Chambers, TORONTO

Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office: — Pacific Building, VANCOUVER, B. C.**

Long Lumber Company

Head Office
Hamilton, Ontario

Branch Office
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IN GOOD SHIPPING CONDITION, AT PARRY SOUND

150,000 ft.	2 x 4 — 10 16	Red Pine
150,000 ft.	2 x 6 — 10 16	"
150,000 ft.	4 x 4 — 10 16	"
150,000 ft.	1 x 4 — 10 16	" Flooring Strips

4/4, 5/4, 6/4, and 8/4 Clear and Clear Face Norway.
We have 10 cars of 3X B. C. Shingles in transit.

WRITE FOR PRICES

THE
M. BRENNEN & SONS MFG. CO.
HAMILTON, ONT.

MATCHING, DRESSING AND RE-SAWING

done in transit at lowest prices. We are equipped to dress and bore heavy Georgia Pine Timbers.

Wm. Milne & Son, Ltd.

Manufacturers:

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.
Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

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White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel shipment only.

Casey-Shaw Lumber Co. Limited

Sudbury, Ontario

Manufacturers of

Lumber and Lath

Planing Mill Work

SAW MILLS
Long Lake, Ont. and Blezard, Ont.

GENERAL OFFICE
Sudbury, Ont.

For Quick Sale

We have the following stock which we want to move at once.

Three cars 3" Hard Maple No. 1 C & B. 90% 1s & 2s.
Three cars 1¼" & 2" Soft Maple No. 2 C & B.
Five cars 1" No. 1 C & B. Hard Maple.
Five cars 5/8" x 4" & up good Spruce Choice crating stock.
Three cars 1" x 4" & up Spruce Mill Culls.

The Glengarry Lumber Co., Limited

Berlin, Ontario

HARDWOOD FLOORING

¶ We can ship from stock any quantity of Birch, Maple or Oak Flooring on shortest notice.

¶ This flooring is the best that the most modern and up-to-date machinery and skilled workmen can produce from selected woods. It is as near perfect as possible and we can guarantee every foot of it.

¶ We are also manufacturers of Hemlock, Spruce, Pine Dimension, Timber, Lath and Shingles, Interior finish of all kinds, Sash and Doors, Box Shooks, etc., all manufactured in modern and up-to-date mill and with an equipment that can supply your needs on the very shortest notice.

DRESSED LUMBER OUR SPECIALTY

Write, wire or 'phone us for prices before placing your orders.

W. C. Edwards & Co., Limited

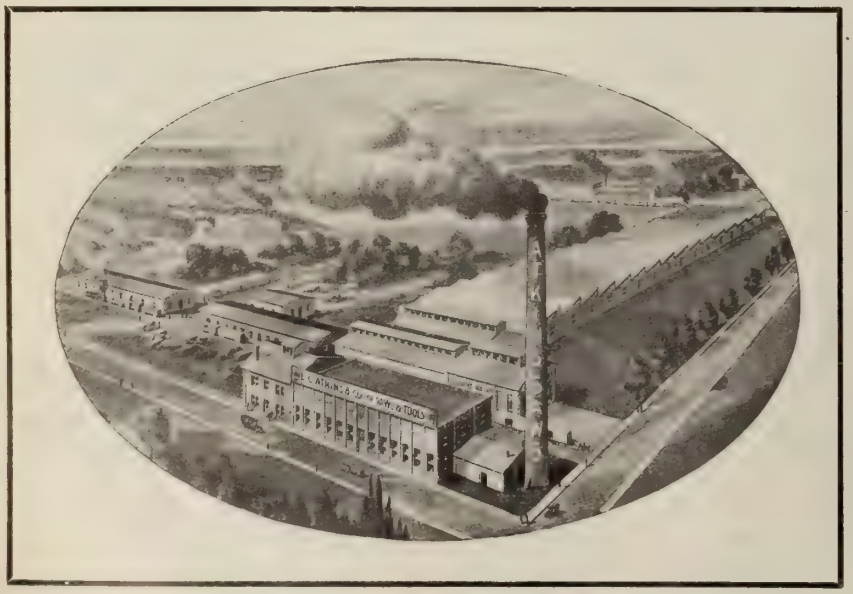
Ottawa, Ont.

Mills at Ottawa and Rockland **Planing Mills and Factories at Ottawa**

"EVERYTHING IN LUMBER"

ATKINS STERLING SAWS

Made in Canada



Band,

Circular,

Cross Cut

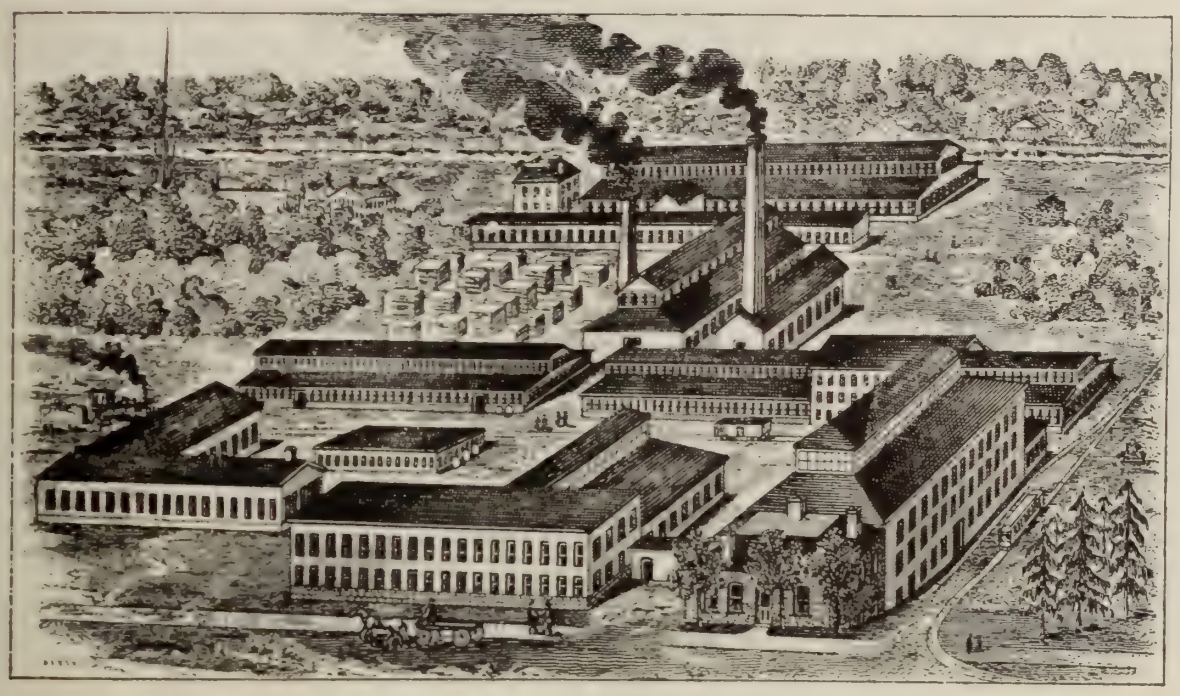
A Perfect Saw for Every Purpose

E. C. ATKINS & CO., Makers of STERLING SAWS Factory, HAMILTON, ONT.

Vancouver Branch, 109 Powell Street

MAPLE LEAF SAWS

The Improved Racer Cross Cut Saw, by Actual Test, is the Fastest and Easiest Cutting Saw Made



The Maple Leaf saw is higher priced than the ordinary saw because it costs more to make it. It is made of the very highest quality of steel and tempered by a secret process which toughens and refines the steel. The Maple Leaf trade mark on the saw means that it is the equal, if not superior to any saw made. It also means that you are privileged to test it against any other make and if not found equal or superior in quality you can return it and have your money refunded.

The ambition of the manufacturers of the Maple Leaf Saws has always been to produce the best tempered saw in the world and they are constantly investigating and experimenting with this end in view. They have recently made some valuable discoveries in evenness of temper. It has always been difficult to get a perfectly even temper on long and thin sheets of steel, such as saws are made of. Our recent discoveries make this an absolute certainty. Every user of saws should bear in mind that the temper of the saw is its most valuable quality. High finish and attractive appearance amount to nothing if the temper is not right.

All Maple Leaf Saws are Guaranteed to be Perfect in Temper

Shurly-Dietrich Co., Limited Galt, Ontario

GARLOCK PACKINGS

Garlock Regular Rings

For all general purposes outside of high pressure work. This Packing is a special grade thoroughly lubricated with the celebrated "Garlock" compound, and is the perfected result of over thirty years experience in manufacturing fibrous Packings.

Garlock Square Duck Packing

Made of good quality Cotton Duck and friction for cold water.

Garlock High Pressure Gaskets

Absolutely heat proof, will not vulcanize or blow out under any steam pressure, being made of long fibre Asbestos Brass Wire Insertion.

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Made of high grade Rubber compounded in such a way as to give it great strength and reliability.

This Packing has established wide reputation on its own merits.

Garlock Cloth Insertion Sheet

Used on cold and warm water pipes. Is unexcelled in pliability, smoothness of finish and strength of Cloth Insertion.

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Specially made to meet specific conditions—absolutely unaffected by oils.

Before placing your next order for supplies get our prices on Leather, Rubber and Canvas Belts, Hose, Brass Valves, Babbitt Metals, Saw Blades, Files, Emery Wheels, etc. Write for catalogue.

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Head Office and Factory: HAMILTON, ONT.

MONTREAL TORONTO WINNIPEG

E. H. Heaps & Co., Ltd.

Lumber, Shingles, Doors, Mouldings, Finish, etc.

Specialties: AA1 BRAND HIGH GRADE SHINGLES
LONG FIR TIMBER

Mills at
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Head Office: 445 Hastings Street West
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MANUFACTURERS OF AND DEALERS IN

Rough and Dressed Lumber

Tamarac, Spruce and Cedar

Fence Posts, Telephone and Telegraph Poles

Moulding in Stock or Made to Order

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ASH BASSWOOD CHESTNUT CHERRY COTTONWOOD

BUCKEYE CYPRESS MAHOGANY

Need any Oak?
Need any Poplar?
Need any Chestnut?

OUR SPECIALTY—The supplying of high class lumber—at right prices.

Shipment direct from mill—good grades.

YOU CAN'T AFFORD to manufacture Oak Flooring when you can buy it—ready to lay—at our prices.

CAN MAKE PROMPT DELIVERIES

THE F. T. PEITCH CO.,

CLEVELAND, OHIO

GUM POPLAR SYCAMORE

PLAIN AND QUARTERED OAK YELLOW PINE

Pine — Larch

THE HALL MARK OF QUALITY

Selects
Shops
Commons
and
Mouldings

Timbers
Yard Stock
Clears
and
Mouldings

The East Kootenay Lumber Co. Limited

Head Office: JAFFRAY, B.C.
Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

For low prices and prompt shipment of

Yellow Pine Timbers
Short Leaf Finish
Chestnut --- Oak --- Ash
Cypress
New Brunswick Shingles

TRY

Fred S. Morse Lumber Co.

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Dependable Quality . . . **The Path of Prosperity** *Reliable Service . . .*

Pine
Hemlock
Spruce
Hard-woods
Rough and Dressed

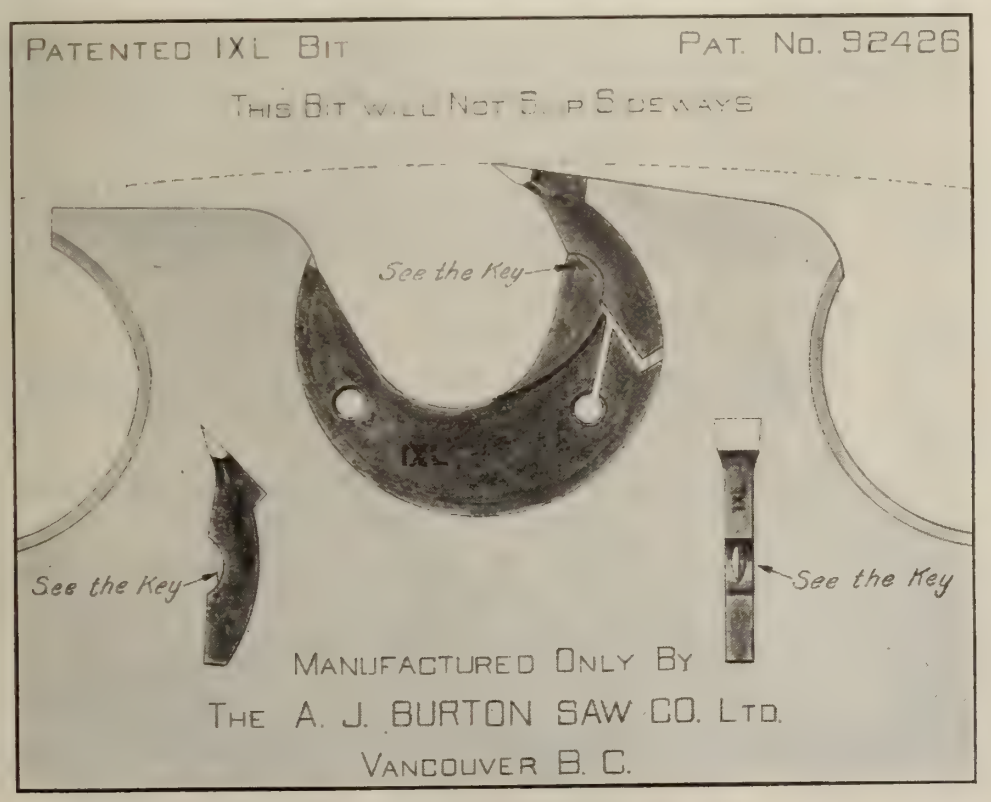
We make a Specialty of Long Timbers

Fassett Lumber Co.—View of Mill

We have complete stock of well seasoned lumber for general yard trade and prepared to make prompt shipments to any market

Fassett Lumber Company, Limited

FASSETT, QUEBEC



Our Inserted Saws are Fitted with our Patent I.X.L. Bits and Shanks, warranted not to slip sideways, and to cut free and easy, and have no equal in hardwood or any other timber.

Saws **Band, Gang, Solid and Inserted Tooth Circulars, Bits and Shanks**

Carried in Stock at our Ottawa Branch. Special Attention given to all Saw Repair Work.

The A. J. Burton Saw Co., Ltd.

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VANCOUVER, B. C.
BOX 848
Phone 1748

EASTERN OFFICE, SALES-ROOMS AND REPAIR WORKS
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Phone 7458

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Maritime Lumber Co.
Limited

Head Office:
Saint John, N. B.

Branch Office:
180 St. James St. Montreal, P. Q

OFFER FOR IMMEDIATE SHIPMENT THE FOLLOWING WHITE PINE

500,000 ft. 1 x 6 to 1 x 12 White Pine
1sts, 2nds and 3rds

500,000 ft. 1½ x 7 to 1½ x 12 "
1sts, 2nds and 3rds

500,000 ft. 2 x 7 to 2 x 12 "
1sts, 2nds and 3rds

500,000 ft. 3 x 7 to 3 x 12 "
1sts, 2nds and 3rds

300,000 ft. 3 x 4, 5 and 6 "
1sts, 2nds and 3rds

The above Pine is last year's cut,
1st, 2nd and 3rd Quality

Donald Fraser & Sons, Limited

CABANO, QUEBEC

MANUFACTURERS OF

Long Lumber

Rough and Finished

Shingles, Clapboard,
etc.

To Reach More Lumber Buyers

Canadian lumber manufacturers and wholesalers should advertise regularly and prominently in the

Canada Lumberman & Wood Worker

This paper reaches all the principal buyers of Canadian lumber at home and in Great Britain, United States, Europe, South America.

Rates on application to the head office.

220 King Street West
TORONTO - ONTARIO

We Offer—Several Cars

"CLEAR WHITE" CEDAR SHINGLES

At Special Price For Shipment to

POINTS NORTH AND WEST OF TORONTO

Dalhousie Lumber Co., Limited
Dalhousie, New Brunswick

Agents for Ontario **R. Laidlaw Lumber Co., Limited**
Toronto

Selling Mill Stock

If you desire to get beyond the retail dealer and reach the builder and the architect it will pay you to advertise in the

Contract Record
and Engineering Review

the only weekly paper in Canada for builders, architects, etc.

Send for sample copies and rates to the publishers

Hugh C. MacLean, Limited
Toronto, Ontario

General view of one of our lumber yards showing piling facilities at Bathurst, New Brunswick

Do your customers come back? If not, bring them back with

New Brunswick Spruce

No other wood lasts longer or gives better service.

Stock Now Ready for Shipment

Clear and No. 1 Spruce

100M 1¼x4″ and up, wide run
200M Scant 2x4″ and up, wide run

Merchantable Spruce

250M 5/8x4″ and up bone dry
250M 1x5″ and up bone dry
500M 1¼x6″ 10 ft. and up
500M 1¼x8″ " "
100M 1x8″ " "
500M Scant 2x5″ " "
500M Scant 2x6″ " "
200M 2x8″ " "
200M 3x6″ " "
200M 3x8″ " "

No. 3 Barn and Better Pine

200M 1x4″ and 5″ 10 ft and up
200M 1x6″ " "
200M 1x7″ and up " "
250M 1x8″ " "
100M 1¼x4 to 6″ " "
300M 1¼x7″ and up " "
150M 1½x4 to 6″ " "
500M 1½x7″ and up " "

3x6″ and up 10 ft. and up Pine

350M 3rds and Better, Bone Dry

Cedar Squares

25,000 ft. 5x5″, 10 ft. and up
25,000 ft. 6x6″, 10 ft. and up

Tell us your needs and we will see that you are supplied. All stock shipped in rough only.

SPRUCE, PINE AND HARDWOODS

Bathurst Lumber Company, Limited

BATHURST, N. B.

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

J. M. Clifford & Co.

Manufacturers and Dealers in
all Kinds of

Hardwood Lumber

Poplar Basswood Cypress Elm Oak Ash Maple

We have a full stock of the above thoroughly air dried. Complete line and high grades. Prompt shipments on mixed cars.

Best Quality Uniform Grades Low Prices

GET OUR QUOTATIONS BEFORE BUYING

Detroit - - Mich.

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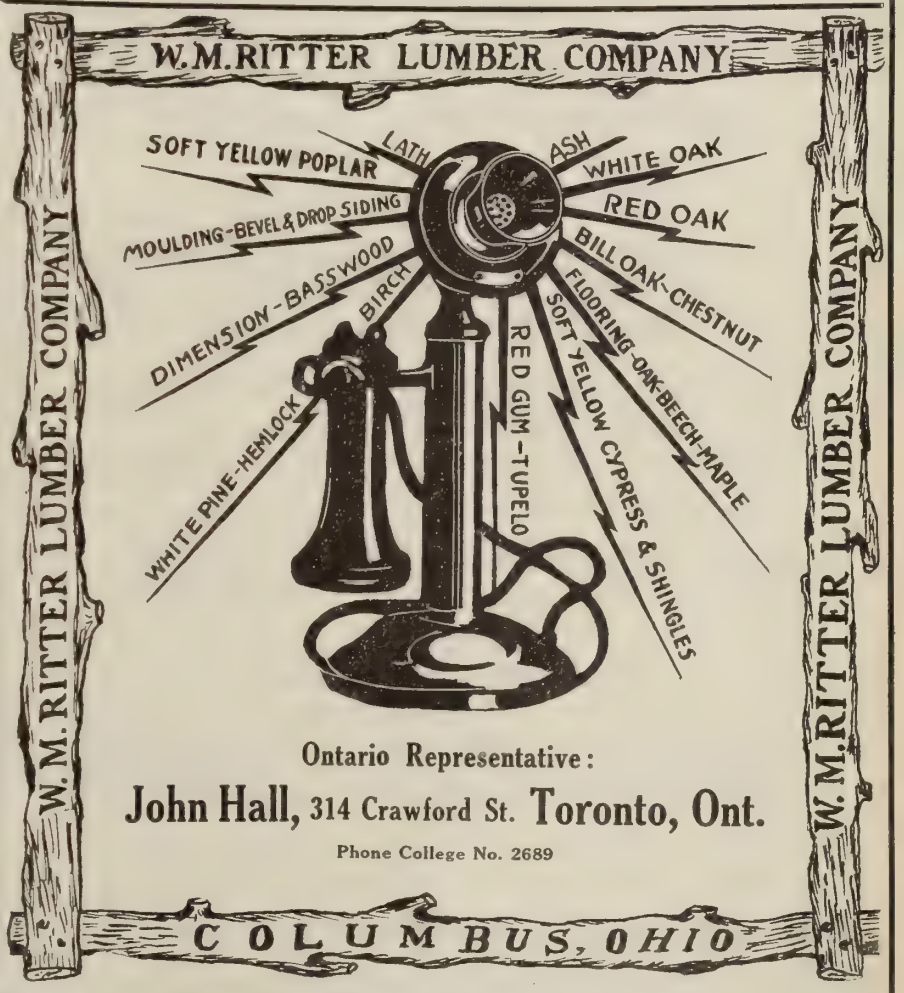

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Mixed cars furnished at same prices as straight cars.

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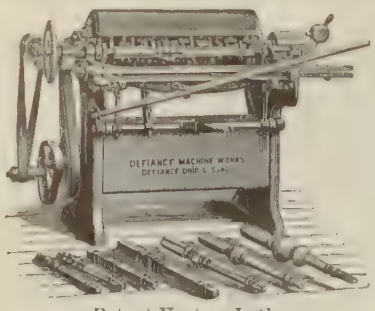

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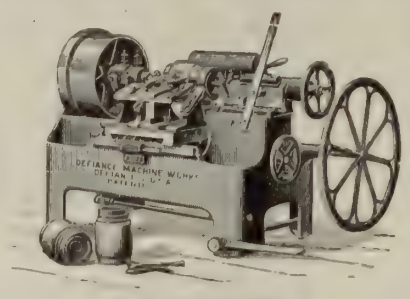
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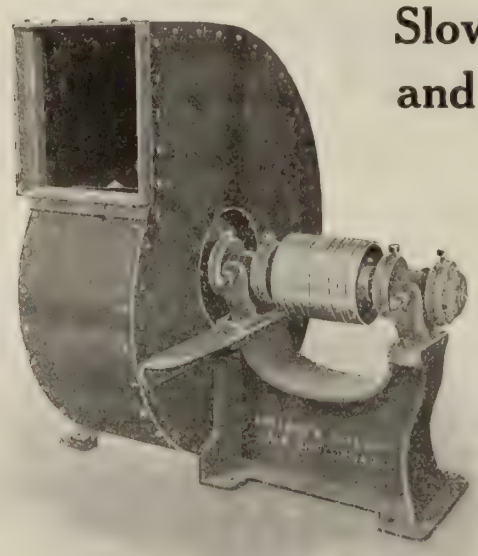

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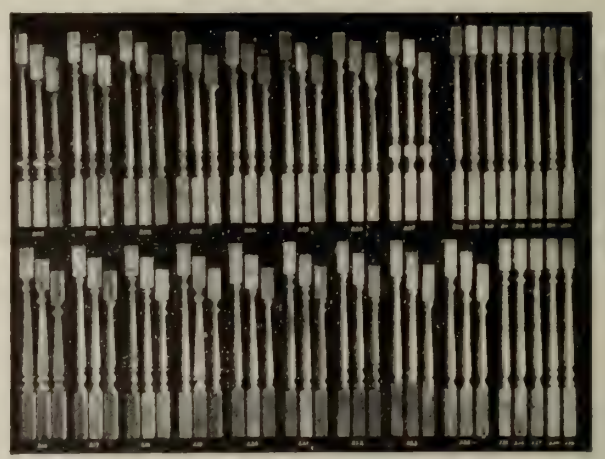

This shows some of the designs made with cutter-heads included in regular equipment. There are more in our big circular. Send for it. Those shown in the round are also made octagon or square.

We Have Solved the Problem of

Balusters In Small Lots

Made Profitably by Machinery

The improvements in our No. 92 Turning and Variety Machine, and the complete variety of the cutter heads, which are arranged in sections, makes it easy to match very closely almost any detail design, and to make the change to any pattern, ready for turning.

IN ABOUT 15 MINUTES
WITHOUT LOOSENING OR ADJUSTING A KNIFE

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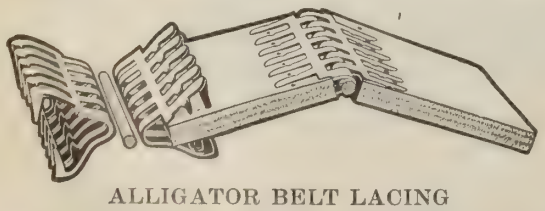
The Strongest Wood Pulley Made. NAILED and GLUED

We carry the largest stock of Wood Pulleys in the Country.



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Soo Line Logging Tools—The Favorite of the Practical Lumberman

Write us your requirements

Canadian Logging Tool Company

SAULT STE. MARIE, ONTARIO

A Belt which Conveys ALL the Power

Practical men know the drainage of power from a slipping belt, ***and because they know,*** they are buying

GOODYEAR RUBBER BELTING

Which Neither Slips Nor Stretches

It is built up, layer upon layer, of close-woven, long-fibre, cotton fabric, rubberized and cured under Goodyear processes. And every Goodyear belt has in it the lowest possible minimum of stretch, because the belt is "cured" whilst stretched to the limit of safety in a special machine.

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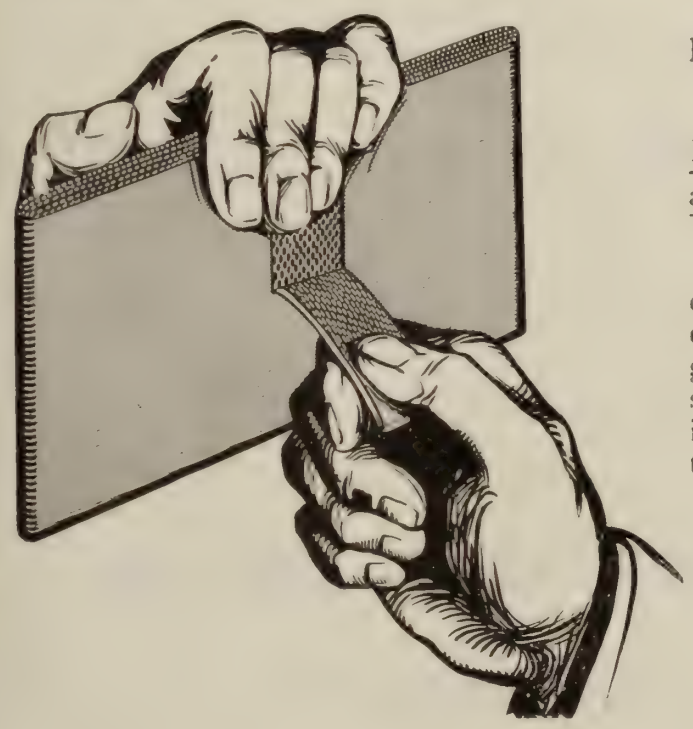
And the result is entirely satisfactory to belt users—a fact to which our enormously increased sales testify. What is the significance of this CONTINUED SALES INCREASE — 50% over last year? Simply that Goodyear Belting more than fulfills the claims made for it by the Goodyear people—who know what a belt should do, and make a belt to do it.

It has cost us less than $200.00 for claims or adjustment of every kind in connection with our total output for the past two years—a remarkable tribute to Goodyear reliability.



Look into the Belt for Yourself—Try to Tear It Apart.

Make a cut in the top layer—and then try to pull it apart. You will get a faint idea of its strength.

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It has all the tensile strength necessary to absorb tremendous strain without slip, stretch or rent. The grip of rubber and the prodigious strength of hard-twist cotton fabric are united, and prove equal to every emergency.

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Mr. T. H. E. Retailer,
Canada and United States,
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Dear Sir:—THE SAW-MILL OWNERS SALES COMPANY is a collection of lumber manufacturers of the Provinces of Quebec and New Brunswick, representing an annual output of over Forty Million Feet B.M. of Spruce lumber (apart from the Lath and Shingles), united under one Board of Management, having supervision over the sawing of the lumber and manufacturing in general of all the Mills interested, with the sole aim of creating uniform grading and uniform manufacturing. Therefore, avoiding the great trouble experienced by wholesalers in general, which is to supply their customers with stock of all kinds of manufacture and grade, caused by the individual management of each mill, where the wholesaler buys his supplies. A state of affairs entirely beyond the control of the wholesaler. Our organization in this instance naturally gives the Retailer better satisfaction. All our individual shipments are samples of the whole output.

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We remain, Dear Mr. Retailer,
Yours respectfully,
THE SAW-MILL OWNERS SALES COMPANY.

A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

HUGH C. MacLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President.
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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 32 Toronto, December 1, 1912 No. 23

The St. John River Driving Problem

One of the time-honored problems which have troubled the lumbermen of New Brunswick, is that connected with the driving of logs on the St. John River. The difficulty, which is of an international character, continued for many years, until not long ago, when it led to blows and even to bloodshed. It was then taken up seriously by the governments of both countries with the result that present indications point to a solution which, while involving a considerable outlay in money, will make driving conditions more certain and pleasant for all time to come. In another part of this issue will be found a synopsis of the report of the consulting engineers who have been looking into the problem for two years. The report is very definite in its conclusions and recommendations and leads to the belief that the problem will soon be completely solved.

The St. John River, which is the main stream of the Province of New Brunswick, takes its rise from a watershed in the Province of Quebec, close to the northwest boundary of the State of Maine. Its course is at first notheasterly to a point known as Upper St. Francis, on the Canadian boundary between Maine and New Brunswick. From this point to Grand Falls on the Canadian side, a distance of about thirty-five miles, it forms the dividing line between Maine and New Brunswick, its direction being first northeast, then southeast. From Grand Falls the general direction of the stream continues southeast through the Province of New Brunswick until it enters the Bay of Fundy at St. John. For many years the St. John River has played an important part in the lumber operations of the State of Maine and the Province of Quebec, and forming as it does a boundry line between the two it has been a stream of international importance, involving international disputes at times between rival lumbering concerns of the United States and Canada. It is essentially a highway for the lumber trade, and along its course between the two countries it has been so used by American and Canadians alike. Of late years the flowage has at certain seasons proved inadequate to the demands for log driving, the inevitable jams followed, and sometimes it was an American's logs and sometimes a Canadian's that would suffer. One man's misfortune brought on those of another.

Matters at last reached the stage when government interference became necessary to prevent bloodshed, and an international commission was appointed to look the river over and to devise some way of improving the flowage, so as to remove the cause of the friction between the rival lumbermen. This commission comprised two prominent Canadians and two Americans, with a consulting engineer from each country to do the actual expert investigating. For two years these engineers have proceeded with their investigations. The time may seem a trifle long and the expense of the investigation rather heavy, but from all accounts the report has been a thorough one and well worth while.

The result of investigations by the engineers has been a recommendation of an expenditure of nearly half a million dollars for dams, so as to raise the level of the stream sufficiently to facilitate the log driving, though to render it of still further utility would considerably more than double this outlay and involve additional expense in shape of damage from overflow. The engineers suggest also that the driving be entrusted to an authorized company, which some concern might undertake under the improved conditions recommended. These improvements are set forth in detail in the report of our correspondent.

Hemlock Meeting Competition

In the Canada Lumberman of November 15th an editorial was published dealing with the danger of substitution of other woods to take the place of hemlock, which to-day, is held at prices that a year ago would have been considered altogether impossible. There is no question that the present situation in connection with hemlock is critical. The prices which are being offered and asked are exceptionally high. In fact the trade is scarcely regulated by prices at all. The chief consideration is the ability of the seller to deliver the stock. The editorial referred to above attracted comment from many quarters.

One well-posted dealer has drawn our attention to the fact that the conditions predicted are already in effect and that woods from other parts of Canada and from the Southern States are being delivered in Toronto at prices which make it profitable to handle them instead of hemlock. These woods will soon find a steady trade and will, to that extent, reduce the demand for hemlock, causing a permanent injury to the hemlock market which will make itself felt severely when the next period of depressed trade arrives. The warnings of the prophet are generally laughed at or neglected. We are not exactly prophets ourselves, but some of those who have been handling hemlock of late are sufficiently posted to prophesy safely that a time of reckoning is likely to come, unless the producers of hemlock are extremely cautious.

The recent meeting of the hemlock manufacturers in Toronto would indicate that they are awake to the necessity of going slowly. They refused to ask for higher prices at present, but there were some who believed that higher prices were justified. Possibly they are justified by the conditions of supply and demand to-day, but the real question is whether they are both justified and wise. We have little hesitation in saying that in our opinion hemlock is to-day at a figure in Ontario which is encouraging substitution and is likely to cause trouble a little later on. Those who are manufacturing hemlock will be well advised if they make a close study of these conditions and watch closely for indications of substitution, so as to be ready to hold the markets for their own stocks.

That the danger to hemlock already exists may be seen by anyone who will examine into the present trade conditions. New Brunswick and Quebec spruce are coming into Ontario to-day in largely increased quantities. In the Maritime Provinces manufacturers have just passed through a year during which it has been almost impossible to make shipments to the Old Country on account of the high ocean freight rates. They have been obliged to look to all rail markets for an outlet and they have found one of these in Ontario. Eastern

spruce is welcome in Ontario. It fills many good bills and gets the trade on its merits. Present conditions, however, are enlarging its outlet at the expense of hemlock and the chances are that before long eastern spruce will be a much more important factor in Ontario markets than it has been in the past.

Spruce from Eastern Canada is being delivered in Ontario markets to-day at prices below what hemlock for the same purpose is bringing. Merchantable spruce, 2 x 4 to 2 x 8 can be delivered in Toronto to-day at prices not exceeding $21. At the mills in Ontario they are asking $19 to $19.50 for number one hemlock, 2 x 4 to 2 x 10. The freight on this would be from $2.50 to $3 per thousand according to the condition of the lumber. It is more often $3 than $2.50, as hemlock is now shipped pretty close to the saw. It is clear, therefore, that the hemlock manufacturer is asking just about all that it is safe to ask at the present time.

That eastern spruce is likely to improve its hold upon Ontario trade is becoming more and more certain. An active campaign on the part of manufacturers of spruce in Eastern Canada at the present time would probably bring forth profitable and lasting results. Not only is spruce taking the place of hemlock, but it is making itself felt in the white pine trade. To a very large extent, 1 x 4, 5 and 6 in. spruce is taking the place of white pine of the same width, and making the demand for the intermediate grades of white pine very sluggish.

Spruce is not the only wood that is finding new or improved markets in Ontario. There are indications to-day that southern woods which have never touched the Ontario markets to any extent as yet, are looking covetously at the trade here. The Canada Lumberman was shown a few days ago some samples of tupelo and of loblolly pine from the Southern States which a well-known wholesaler is preparing to place on Ontario markets. He is going into the matter seriously and is confident that the present market conditions make the proposition an attractive one.

All these little straws indicate the direction in which the wind is blowing. They do not indicate a storm but they do give warning that there is wisdom in being prepared for the future by going cautiously in the present, no matter how tempting may be the inducements to make hay while the sun shines.

Causes of High Ocean Freight Rates

The high levels to which freight rates have advanced for the shipment of lumber by ocean going vessels have been discussed frequently in these columns. Everyone who is engaged in the export lumber trade has felt the effect of this situation and has wondered whether the situation was normal or exceptional. There is a general belief that the advances are due to the exceptional demand for vessel space, resulting from a remarkable prevalence of trade activity in all the chief manufacturing countries of the world. According to this view, the vessels have not sufficient space to move all the cargoes offering and their owners are simply accepting the best offers and neglecting anything else.

Among the numerous references to this question that have recently appeared in the lumber press one of the most interesting was published recently by the Lumberman's Review. "Transportation rates by water," says the article, "seldom reach the height that has prevailed during the past six months, due, we have every reason to believe, to the operation of the law of supply and demand. It cannot be claimed that steamship capacity is decreasing, but evidence is not wanting to prove beyond question that the day of the sailer is numbered, even in the face of the high rates now being secured by sail tonnage in all American waters as well as for the deep sea voyages. A rate approximating $5.00 from St. John, N.B., to New York would have been considered prohibitive a few years ago, but that rate prevails to-day, and premiums are being paid for both large and small vessels to move lumber cargoes from the tide water points in Maine to New York and New England points, while $6.50 to $7.00 per thousand is still being quoted for vessels from Georgia and Florida ports to New York and Boston, respectively. The demand for vessels to move cargoes from exporting points on the Atlantic Coast to the Argentine Republic has for the past twelve months squarely exceeded the supply, and rates have ruled sufficiently high to make this long voyage very profitable to the vessel owners. Steamer room for lumber from Southern ports to the English Channel is very difficult to secure, and for the eastward voyage from Great Britain the rate for moving mahogany logs to New York is $10.00 per thousand and higher, whereas the prevailing rate for many years has ruled between $6.00 and $8.00, with the actual charge seldom equaling the latter figure. That the sailer as a large bulk cargo carrier is to step out of the game and make room for the combination power boat and sailer propelled by a screw as well as by sails, is as sure as is the passing of the old-fashioned fisherman to make room for the power boat fisherman, who is to-day supplying most of the fish for the country. A new Diesel engine, when applied to a craft equipped also with sails, gives a combination motive power which will enable the owner or shipper to figure surely within days, and perhaps within hours, as to the time required for a voyage, thus adding an element of security, safety and regularity to water transportation at a low cost not hitherto enjoyed. This new power development is making rapid progress and will soon occupy an important place in the field of water transportation. It should prove particularly valuable for the movement of lumber on the Great Lakes, for in addition to moving lake cargoes under a time schedule, this new power equipment would add an element of safety, for it would be possible to make a safe harbor within a short time from almost any point on the lakes, where this would be entirely impossible when depending wholly upon sails, and perhaps meeting a very strong and adverse wind. This, of course, does not apply to the barge that is being towed up and down the lakes by a steamer, but as this modern engine may be applied to a barge of any capacity it offers a means for practically revolutionizing lake transportation, which is to continue to wield an important influence on the movement of lumber for many years to come, or until the Pacific Coast and the Far West have given up their primeval stand of timber, which will be many years hence."

Will Study Lumbering and Forestry Problems

Lumbermen, timberland owners and foresters of the United States and Canada will be interested in plans which are under way and almost completed for a thorough investigation of a number of questions which are of importance to these interests. This investigation, when finished, will, it is expected, have beneficial results as regards forest conservation, scientific lumbering, the taxation of growing timber, the practical end of the lumbering business, and general forest education. All the associations interested in the timber business will, it is now apparent, lend their aid in the work.

The undertaking is to be under the general direction of the American Forestry Association, with headquarters at Washington, D.C. The plan originated at the recent Fourth Conservation Congress held in Indianapolis, where representatives of the American Forestry Association, of various lumbermen's and timberland owners' associations and state foresters held a sectional meeting. Every one present was impressed with the need of more active co-operation between the various interests represented in the endeavor to secure the solution of certain specific problems relating to forest conservation and the lumber industry. After a three days' discussion of various plans the meeting appointed a committee composed of E. T. Allen, forester of the Western Forestry and Conservation Commission, of Portland, Ore.; Capt. J. B. White, of Kansas City, Mo., one of the most prom-

inent lumbermen of the United States, and Henry S. Graves, chief forester of the Forest Service, of Washington, D.C., to confer with a committee named by the executive board of the American Forestry Association, and arrange the details of the investigations which were planned. The American Forestry Association subsequently named a committee consisting of Charles L. Pack, of Lakewood, N.J., the new president of the Conservation Congress and a lumberman of national prominence; Col. W. R. Brown, president of the Berlin Mill Company, of Berlin, N.H., a prominent timberland owner and paper mill owner; and E. A. Sterling, a forest and timber engineer, of Philadelphia.

This committee has outlined a tentative plan of work, which will probably be adopted. Two distinct lines of activity are proposed. One involves the appointment and guidance of standing committees which shall report to a forestry section of the Fifth Conservation Congress on problems relating to forestry and lumbering, following careful investigation. The other is to have the program of the next Conservation Congress arranged so that a great deal of prominence and publicity shall be given to forest problems. While the subjects assigned to the committees will not be definitely decided until after conference at Washington, Portland and Seattle, it is suggested that among them shall be forest taxation, forest legislation, forest fires, forest education, state forestry, and publicity.

High Prices of Timber—Effect upon Operations

The effect of higher prices for standing timber, upon lumbering operations is outlined clearly in an article by N. P. Wheeler, which appeared in a recent issue of American Forestry. Higher prices for standing timber and its products, says Mr. Wheeler, will tend to conserve the forests. When timber is cheap it is wasted; for, when cut, it is not worked up, nearly as close as when more valuable. I am confident there has been more timber burned up and destroyed in the State of Pennsylvania than has been manufactured. I have seen 8 or 10 acres of the finest white and red oak girdled just to kill it, so that it could be burned up to clear the land. In fact, that was the common way of clearing the land, the only way of marketing in those days was by manufacturing by water power and seeping down the tributaries of the Allegheny and the Allegheny and Ohio to Cincinnati and Louisville. Only the best of the white pine was taken. The stumps cut breast high and fifteen feet of the bulk of every tree left in the woods and all the tops above the limbs. Not to exceed 50 per cent. of the selected tree was taken, the rest being left to rot. No hardwoods could be floated and were therefore not considered valuable. I have seen white pine girdled to kill it to clear the land. Once when our rafts were lying by for high water in the Ohio a larger mass of fence rails brought down by the high water collected behind the rafts. To my surprise I found these fence rails were the finest of black walnut. When the tanneries first came up into Western Pennsylvania hemlock was cut just for the bark, and thousands of acres after the bark was taken off were left to rot or burn. Now that hemlock has become valuable, it is all gathered up that will make lumber. In many places the limbs, tops and branches are gathered up for pulpwood and not enough left to make a bad fire, thereby protecting and conserving the forest. When blackened over by fire it cannot be used for pulpwood. These are some of the reasons why I am confident higher prices will tend to conserve the forests.

Editorial Short Lengths for Busy Readers

The protection afforded wild animals in Algonquin Park has resulted in a great increase in the number of beavers, which have become so numerous that they have done considerable injury to the farms bordering on the park by damming the streams and flooding the fields. Over 1,000 were killed last year and the number is to be further reduced this season. The deer have also multiplied rapidly and complaints are made of damage to growing crops from their depredations. The legislation respecting the park will probably be modified to allow the shooting of deer under reasonable restrictions.

Several months ago the railways in the Southern States issued new schedules advancing the rates for Southern pine and other lumber from points in the United States south of the Ohio river to Canadian points. On the complaint of the American lumbermen's associations, these advanced rates were suspended by the Inter-state Commerce Commission until December 31, pending an investigation as to the propriety of the advance, and also as to the lawfulness and reasonableness of the higher schedules. Although no date has been definitely set for the hearing, it is probable that the Inter-state Commerce Commission will hold it during the third week in December at St. Louis, Missouri.

The most serious matter at present affecting the lumber trade in Canada is the shortage of cars for the shipment of stock. Business is exceptionally good in practically all parts of Canada and if there were sufficient cars to move the lumber, there would be in progress to-day a record trade. Not only is there an excellent demand for all classes of lumber but the prices that are being paid are exceptionally strong in practically all lines. Many reports have been received by the Canada Lumberman regarding the shortage of cars. In fact a great number of the letters received on ordinary business contain some reference to this difficulty. One of the latest to hand is a communication from a firm in New Brunswick who manufacture large quantities of lumber and who are dependent upon the Intercolonial railway for their shipments. They report that for the past two and a half months they have been seriously handicapped for want of empty cars. The Intercolonial Railway, they cay, have allowed practically all their cars to go off their line with the result that they are now unable to take care of their customers who are dependent upon them for cars to move their lumber. The situation has been a very serious one for some time, and they are losing business steadily for want of cars in which to make prompt shipment.

This is really a regrettable situation. The Department of Railways unquestionably knew as well as anyone else in Canada that there would be danger of a shortage of cars for the movement of lumber and all other classes of freight during the last few months of the present year. The importance of the lumber industry in the Maritime provinces would have justified them in taking exceptional measures to provide it with sufficient cars to move most of its stock. If there had been a slight shortage of cars the matter would not have been so serious, but when the company have permitted practically all their cars to go off their line at a time when under ordinary conditions a serious shortage is certain to develop, the situation calls for some very definite explanation. The Department of Railways owes it to the lumber industry of the Maritime provinces to rectify the situation immediately and in future to take effective measures to prevent a recurrence of so serious a shortage.

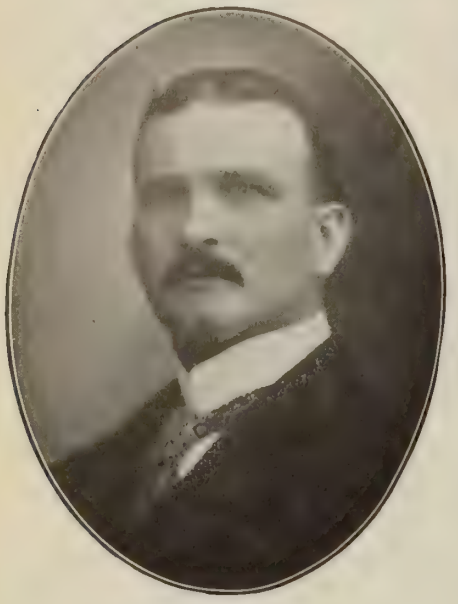
In the annual report of the Minister of Lands and Forests of the Province of Quebec, just laid on the table of the Legislative Assembly, it is stated that the revenue of the Department totalled $1,658,475, the increase being due to the change in the tariff of ground rents and stumpage dues in connection with timber concessions. The ground rents amounted to $323,584, and the stumpage dues to $1,173,393. Penalties totalled $19,635. During the year 179,130 acres of land were sold, of which 177,277 acres were for colonization and farming purposes. There is now left 7,066,755 acres of public land surveyed and available for farming and other purposes.

The Minister reports a great improvement in the supervision of lumbering operations, and also in the protection from fire, as shown by the decreased loss from this source during the year.

Supplementing this report, it may be stated that, according to the budget speech of the Provincial Treasurer, last year's revenue from lands and forests indicated that steady progress had been made in the lumber, pulp, and paper business. For the last fiscal year the actual receipts exceeded the estimates by $248,458. For the current fiscal year there was an increase of $52,930 in the first four months compared with the same period in the previous fiscal year. The estimate of revenue for the current fiscal year was increased by $102,000.

Progressive Quebec Lumber Producers

Three Modern Mills and Up-to-date Woods Equipment of the Lotbiniere Lumber Company, Lyster, P. Q., Manufacturing Lumber and Pulpwood



E. W. Tobin, M. P.
President Lotbiniere Lumber Company

FROM small beginnings, the Lotbiniere Lumber Company of Lyster, P. Q., has become one of the most progressive concerns in the province of Quebec. While it is not as large as some of the other companies it has excellent plants and timber limits 14 x 6 to 10 miles, aggregating 100 square miles of freehold property. The offices are at Lyster, P.Q., and the three mills are situated at Duchene, about a mile from Deschaillons, Kingsbury; and Chaudiere Junction, County of Beauce, some 8 miles from Lewis. The Duchene mill, operated during the six summer months has a capacity of 16 million feet, while the Kingsbury mill, operated in winter, has a capacity of 8 million feet, or 100,000 feet of logs and 60,000 feet of logs per day respectively. The Kingsbury mill is located on the limits, and the Duchene mill a few miles off, about a mile from the St. Lawrence River.

Foreign Shipments the Chief Business

About 25 per cent. of the output of the Duchene and Kingsbury mills goes into pulp. Most of the balance is shipped to the United States and Great Britain, there being a very small local business. Owing to the advance in ocean freights this year, by far the greater proportion of the lumber has been going to the United States. Spruce and fir comprise about 75 per cent. of the cut, hemlock accounting for the rest. At the Duchene mill 100 men are employed and at Kingsbury mill 65, but including the third mill about 500 people are employed all the year round.

A stream runs through the limits, which is utilized for floating the logs to the mills. The company has excellent shipping facilities, as it has easy access to the Intercolonial, the Quebec, Montreal & Southern, and the Grand Trunk railways, the first named running through the property. From the Duchene mill the lumber is conveyed by rail to Deschaillons, and from there by an inclined cable railway to the river, from whence it is shipped by boat to New York and Hudson River points. The capacity of the inclined railway is 100,000 feet per day. The Duchene mill is particularly well equipped, and Mr. W. H. Mitchell, the general manager, claims that it is the fastest mill in the province of Quebec. At the mill there is an incinerator built from the design of Mr. W. H. Mitchell, general manager of the company. It consumes all the sawdust and waste which is not sold.

Colonization Work of the Company

From Lyster the Lotbiniere and Megantic Railway runs right through the centre of the limits as far as Deschaillons, and with the aid of a little car, run by gasoline, Mr. Mitchell is able to visit both mills. The car travels over 30 miles an hour, and Mr. Mitchell, who is an ardent sportsman, is able to have some good sport while travelling in this manner. The track was sold last last year, but the right to travel on it was retained by the company. Some colonization work has been done by the company, which last year built a number of houses and a church at Kingsbury. The population of Duchene is 3,000, and of Fortierville, which is at the junction of the Quebec, Montreal & Southern and the Lotbiniere & Megantic, 800.

F. N. McRae, M. P.
Vice-Pres. Lotbiniere Lumber Company

The mill at Chaudiere is nominally the property of the Chaudiere Lumber Company, but it is controlled by the Lotbiniere Company. There is a very large water power near the property, capable of developing from 5000 to 7000 horse power, but up to the present nothing has been done in the way of development. The mill handles pulp wood to the extent of 40,000 to 50,000 cords, and its capacity is being increased so as to enable 75,000 to 100,000 cords to be dealt with.

The Company's Chief Officers

The Lotbiniere Lumber Company was established in 1902. Its president is Mr. E. W. Tobin, M.P.; the vice-president Mr. F. N. McRae, M.P. Mr. W. H. Mitchell, the general manager, has been with the company from its inception, and has had a large share in its development. He has had many years' experience in the lumber trade, and began his business career with the Estate of C. F. Clark & Co., of Brompton Falls, later being connected with the International Paper Company.

The equipment of the mills of the Lotbiniere Lumber Company is thoroughly modern and efficient. Much of it was installed by the Waterous Engine Works Company, Limited, Brantford, Ont. The Waterous machinery installed includes log haul-up, circular saw frame, saw carriage, 38-in. resaw, four saw edger and a 12 x 14 engine.

The Hon. J. D. Rolland, president of the Rolland Paper Company, died suddenly on November 16, at his residence in Montreal. Mr. Rolland was a prominent business man, at one time being presi-

Kingsbury Mill of the Lotbiniere Lumber Company

Duchene Mill of the Lotbiniere Lumber Company

Interior of Kingsbury Mill, Lotbiniere Lumber Company

dent of the Manufacturers' Association, of which he was a founder. He was president of the Bank of Hochelaga. In 1896 he was made a member of the Legislative Council of the Province of Quebec. Mr. Rolland was the head of one of the most important paper manufacturing firms in the country, with mills at St. Jerome and St. Adele. Recently the capital of the company was increased, and the Northern Mills purchased. Mr. Rolland was also interested in timber limits in the northern part of the Province of Quebec.

Want Permission to Export Crown Land Pulpwood

The Government of the province of Quebec have taken under consideration the question of relieving manufacturers of paper in the province of Quebec, of the surtax placed on paper entering United States when it is manufactured from pulpwood grown upon Crown Lands in the province of Quebec. Under present conditions, pulpwood cut from Crown Lands cannot be exported in its natural state. It must be manufactured into pulp or paper. The United States impose a duty amounting to $5.65 per ton on paper made from any wood, the export of which to the United States is prohibited. On October 31st a deputation of paper manufacturers in the province of Quebec waited upon the Provincial Cabinet with a request that they abolish the restriction on the export of pulpwood from Crown lands to the United States. The companies represented were the Laurentide, the Belgo, the Wayagamack and Price Bros. The deputation explained that the restrictions were a serious handicap to those who were manufacturing paper for export to the United States. They pointed out that the province of British Columbia had set a precedent by allowing wood from Crown lands owned by a newsprint company to be exported to the United States. The United States Government in recognition of this concession had permitted the paper to go into that country free of duty. They were convinced that if the example of British Columbia were followed by Quebec, it would stimulate the newsprint industry of the province.

Sir Lomer Gouin discussed the various points briefly and promised that the Government would consider the request seriously.

Mr. Paul G. Owen, Secretary of the Limit Owners' Association of the province of Quebec submitted a memorial in support of the proposal. He also took occasion to suggest in the memorial that the stumpage dues of the province should be reduced.

Logging Engine at work, Lotbiniere Lumber Company

Hon. Jules Allard, Minister of Lands and Forests, states that a decision on the subject will be announced shortly. He has given no suggestion as yet regarding the government's attitude but states that in regard to this matter as in all others affecting the industry of the province, the government will do its best to encourage successful development. He has declined as yet to say whether the embargo will be removed either wholly or partially.

The purpose of placing the embargo upon the export of pulpwood grown on Crown lands was to give the province the benefit of the manufacture of its pulpwood into paper. This would enable the province to utilize its wealth of water power and provide employment for its population, thus preventing an exodus to countries outside of the province. Not only was the manufacture of paper in the province a benefit to its people, but it was better for the United States paper manufacturers to establish their mills on the Canadian side of the line. It would be cheaper for all new mills to adopt this course so as to save freight charges on pulpwood and to take advantage of the cheap water power available in Quebec.

New Paper Bag Company

The amalgamation of the Smart Bag Company, of Montreal, with Woods Limited, of Hull, Que., will, according to present arrangements, go into effect on January 1 next. The authorized capital of the new company is $5,000,000. It will purchase as going concerns the two companies, the first named having factories for the manufacture of paper and other bags in Montreal, Toronto and Winnipeg, and the last named having a factory at Hull and agencies at Montreal, Winnipeg, Calgary and Vancouver. It is understood that Col.

Kingsbury Yard Scene, Lotbiniere Lumber Company

Charles A. Smart, of Montreal, will be president and managing director, and Col. J. W. Woods, of Ottawa, one of the vice-presidents.

The consolidation of these two Canadian bag companies into the Smart-Woods Company, Ltd., draws attention to the large interests held in Canada by a United States bag companw, known as the Union Bag and Paper Company of New Jersey. This company, which has a capital of over $30,000,000, has immense timber holdings in the province of Quebec, and has also recently established a pulp mill near the city of Quebec at a cost of half a million dollars. It controls the following companies operating in Canada:

Charlemagne and Lac Oureau Lumber Company, which has 600 square miles of timber lands on the Assomption and the Lac Oureau rivers; also mills at Charlemagne, near Montreal, and at St. Adele and Montcalm.

Gres Falls Company, which owns 1,173 square miles of timber land on the St. Maurice and its tributary rivers; also saw mills, terminals, etc., at Three Rivers, Que. The St. Gabriel Lumber Company, which owns 285 square miles of timber land on the Maskinonge and its tributary rivers; also mills and terminals at St. Gabriel de Brandon, Que.

In addition to these lands the company owns 485 square miles of timber lands located on the tributaries of the St. Maurice River. These Canadian properties aggregate 2,550 square miles.

When the company acquired these woodlands, six or seven years ago, it was estimated that there was sufficient timber upon them to meet the requirements of the company for the next fifty years. But as the company does not now wish to reserve the timber for its own use only, it is selling a large amount of lumber, the average being about 35,000,000 feet a year.

The pulp mill near Quebec, which was started in June last, is now turning out daily about 100 tons of ground wood pulp.

Engineers Report on St. John River

Improvements Required for Satisfactory Driving Conditions would Cost $471,510—Outline of Proposed Changes

The board of consulting engineers of the St. John River Commission has submitted a report of its findings to the commission which will go far toward settling some of the international vexing questions anent the stream.

For many years there has been a conflict of lumbering interests on the St. John River, chiefly over the use of water for driving purposes, and the delays experienced by the St. John drive at the sorting gaps of Van Buren, where logs intended for use at that Maine town are taken out of the general mass of timber en route down the river, and in 1905 this friction culminated in violence almost amounting to open warfare between the American and Provincial lumbermen, an exciting incident being the blowing up of a boom by dynamite. To prevent a recurrence of these troubles the International St. John River Commission was appointed by the governments of the United States and the Dominion of Canada to gather such information as might be necessary to a thorough understanding of the situation along the river, and to serve as a basis for an amicable arrangement between the two countries concerning the river and its uses. This commission is at present composed of M. G. Teed, K.C., of St. John; Hon. John Keefe, of St. John, N.B.; Hon. George A. Murchie, Calais, Me.; Hon. Peter Charles Keegan, of Van Buren, Me., with Hon. Oscar A. Fellows, of Bangor, as counsel for the United States, and Hardy S. Ferguson, of New York, and S. J. Chapleau, of the Dominion Department of Public Works, as consulting engineers.

After nearly two years of work and the expenditure of many thousands of dollars under the direction of Mark H. Ranney, civil engineer, of Mohawk, N. Y., the consulting engineers have now submitted their report, which is the most complete study of the valley of the St. John ever attempted.

The engineers have found that with the expenditure of $471,510 for dams, the waters of the river and its tributaries can be raised to a comparatively high level, and so maintained, which would greatly facilitate log driving on the river. To raise the river to a level sufficiently high for all purposes would cost, according to the engineers, $1,273,576. To these amounts must be added the flowage damages, which in some localities would be heavy.

In order to improve the conditions for log driving at many points along the river, the engineers say that from $200,000 to $300,000 might well be expended at the rate of $10,000 to $15,000 annually for a series of years.

The engineers believe that it would be desirable for the best and most economical handling of the water if one corporation could be made responsible for driving the logs through the whole length of the river, at least as far up as Seven Islands. It has been stated that no corporation or individual would care to contract for driving the logs on the upper St. John under present conditions. These conditions would be so improved by the works suggested that a practical river man would not hesitate to assume the responsibility of handling the logs.

While the St. John River is one of the largest streams in the country, and the upper part of its drainage basin is at a comparatively high elevation above sea level, the fall is, with few exceptions, quite uniform, and the opportunities for economical water power development are therefore few. This also applies to the tributaries.

The best power sites are found on the Allagash and Fish Rivers, where the opportunities for storage are exceptionally good.

The engineers met in Bangor with the commission on November 14, to consider the report. The members of the commission will report later to their respective governments.

The general improvements suggested by the engineers are divided into three classes: Channel improvements, driving or flushing dams and reservoir dams. It is stated that the more the river channel can be improved, the less the reservoir development will be found necessary or the greater will be the reserve of water for power purposes.

The chief improvements will consist of storing as great a portion of the spring floods as possible, thereby reducing the height of the freshet stage and forming a reserve to be used when dry weather comes, as it usually comes every summer.

Taking into consideration the matters of economy and return on investments required, the engineers suggest that instead of undertaking at once all of the improvements which have been suggested, the most feasible way is to extend them over a series of years doing that part of the work first that would appear to produce the greatest effect and halting the work when that stage of improvement has been reached, beyond which expenditures do not seem to be justified by the results to be obtained therefrom.

All of the channel improvements suggested should be undertaken and carried through as promptly as circumstances permit. The reservoirs and driving dams suggested for the upper St. John and Big and Little Rivers are necessary to insure safe driving.

The storage reservoirs which can be developed on the St. John River are much greater in capacity than that required for log driving alone. Until there are some water power requirements on the river, a complete development of these reservoirs to their utmost capaciy would not be justified.

The engineers recommended that sufficient capacity be developed at an early date to meet the requirements of the log drivers. When the suggested improvements are carried out to something like completeness, the last of the drive will arrive at the lower section of the river at a considerably earlier date than is now the case and there will be ample water in reserve to raise the level of the river enough to enable the rear driving to remove easily and quickly the logs as they work down the river, and to arrive at Fredericton with a "clean rear" in midsummer.

It is not a large quantity of water that is best for driving logs but as steady and uniform a flow as possible throughout the entire driving season. Absolute uniformity of flow cannot be obtained on the St. John River, as there are opportunities for storing only a limited proportion of the spring freshet. By the construction of the reservoir dams recommended, the freshets will be materially reduced in heights, and in some of the branches will be nearly eliminated, thus reducing the expense and delay now experienced by returning to the water logs that have stranded at the height of the flood.

St. John Drift Drive All Rafted

The drift drive that broke away from Douglas boom on the St. John River, N.B., in mid-summer and went into South Bay is now about rafted. Nearly 150 men have been busy at the work for many weeks and the task has been a very difficult one. The case is the only one ever known in this district where logs jumped the boom in mid-summer. The gang of men moved next to Government Island on Wednesday to begin rafting 10,000 pieces which drifted into there. Only part of the crew will begin the work but later it is expected to re-engage all the men. The work is being done by the St. John Log Driving Co.

Railways Want Higher Demurrage Charges

The Canadian Pacific, the Grand Trunk, the Michigan Central and the Canadian Northern Railways have applied to the Dominion Board of Railway Commissioners for permission to charge shippers or consignees who retain cars for loading or unloading beyond the free time allowed by the present rules during the time between December 1, 1912, and April 1, 1913, $2 per car for the first 24 hours after the free time, $3 per car for the second day, and $4 per car for the third and each succeeding day after the allowed free time. One dollar per car per day, after 48 hours, is the present charge. As a result of this application by the railways the Railway Board will have a hearing in Ottawa on November 27. The Canadian Manufacturers' Association have received notice of this hearing.

Mr. James E. Walsh, Manager of the Transportation Department of the Canadian Manufacturers' Association, referring to the subject said: "I do not consider this proposition of the railways altogether a fair one. It is pretty well known that much of the delay complained of is due to the carriers themselves. Some of the reasons are lack of locomotives and of proper terminal facilities in the larger centres. This Association might not object to a revision of the car service rules, provided there was some reciprocal arrangement whereby the public would be compensated for losses suffered through negligence on the part of the railways."

Montreal Retailers Discuss Car Shortage

The car shortage question was considered by the members of the Montreal lumber branch of the Retail Merchants' Association of Canada at a recent meeting, and a deputation was appointed to interview the railway officials in order to secure better conditions. Complaint was made of the losses due to the very poor car service and also to the demurrage charges which were incurred owing to the delay in unloading cars. It was a serious matter for the retail lumbermen, who found it difficult to get even a single car.

The meeting also took up the question of the lien law, under which notice has to be given to a proprietor of a building in the course of erection where lumber and other material is supplied to a contractor. This notice is compulsory if the retail lumberman desires to protect himself. The law was stated to be impracticable, and the members expressed a desire for the better protection of their interests.

Letters to the Editor

Believes Inspection Would Benefit Whole Trade

Toronto, Nov. 26th, 1912

Editor Canada Lumberman:

Replying to yours of Nov. 25th would say, I have read (with a good deal of interest) the article appearing in your paper in reference to a uniform mode of inspection being adopted in Canada. So far as hardwoods are concerned at the present time most of the dealers so far as I know, in making contracts name the National Hardwood Lumber Association rules of inspection to govern in case of dispute, and as we have here now stationed in Toronto, a representative of that organization, there is no trouble in having him inspect the lumber, provided either one of the parties are members of the Association.

Personally I believe that all dealers who are handling hardwoods to any extent, should be members of the Association so that they could call upon the inspector in case of dispute. Our firm has found it to be an advantage on two or three occasions, in the settlement of disputes which in every case were amicably arranged by referring the matter to the official inspector.

So far as pine is concerned, I do not think there would be very much trouble in arriving at a uniform system of grade. Practically, we have such now in operation, although we have not got it reduced to writing and made official, however I believe that there would be very little difficulty. If the manufacturers and dealers get together they could soon arrive at a basis which would be satisfactory to all concerned. This might necessitate the employment of perhaps one-half dozen inspectors, whose duties would be where called upon to settle disputes, should they arise. I am satisfied that enough business could be found for them, so that their salaries could be paid without very much expense to the association. These of course are my own personal ideas and the result of some years experience in the business.

Hoping that some good may come out of the discussion, and with kind regards, believe me to remain,

Yours truly,

Wholesaler.

Education The Chief Requirement

Montreal, Nov. 23rd, 1912.

Editor Canada Lumberman:

Referring again to the subject of grading rules, about which (in regard to hardwoods) I wrote you a month ago with reference to their application to Montreal and its district, the first point, to my mind, is educational. Those who buy hardwoods from dealers require to be told by circular or otherwise, that they are in danger of being dissatisfied in buying without some solid guarantee, and they should be told to buy only of trustworthy dealers, who will not misrepresent. They should also obtain from such dealers, say a printed slip copied from the rules of the National Hardwood Lumber Association of the U. S. showing what is:

1sts and 2nds	No. 3 Commons	Selects
No. 1 Commons	Wormy	Strips
No. 2 Commons	Saps	

stating also how the widths and the lengths will run in each grade they buy, and having the seller's name signed to it. This would show the customer just what he should get in each of these grades, and would largely do away with the necessity of having a resident inspector here, which would mean a good deal of expense for salary, etc., the money to meet which would not be easily obtained. The buyer could see for himself whether the lumber was right, and if there should arise a dispute, an umpire or third party known to both, and accustomed to hardwoods could be called in.

In regard to soft native woods, such as pine, spruce, and hemlock, a common sense way would be to gradually influence the manufacturers to grade into No. 1, No. 2, No. 3, No. 4, No. 5 and No. 6, dropping the jumbled up "grading" (so called) now in vogue.

Quebec Lumberman.

Good Business Outlook at Boston

Boston, Mass., Nov. 20, 1912.

Editor Canada Lumberman:

The general market in the United States has been pretty good all this year. There seems to be a slight hesitation developing since the election, but we look for a good winter business.

There is a very considerable scarcity at the present moment of low grade pine, white pine, and in spruce boards. We rather look for some further advance on these items.

Shingles have also been scarce and high, although red cedar shingles have been fluctuating both up and down. Apparently they took quite a start some weeks ago, but since then have fallen off somewhat.

On the whole, however, conditions in nearly every line look to be healthy and prices are firmly maintained.

Yours very truly,

Shepard & Morse Lumber Company.

Seeking a Duty on U. S. Shingles

The rapid increase in the importation of United States shingles into Canada has induced a number of the shingle manufacturers of British Columbia to take steps towards having the government place a duty on shingles. A delegation of Vancouver shingle manufacturers comprising Messrs. T. Kirkpatrick, Hugh Davidson and Albert Cotton, recently interviewed Mr. J. D. Taylor, M.P., at New Westminster upon the subject and the matter is also being taken up with Mr. H. H. Stevens, M.P., and other British Columbia representatives at Ottawa. The delegation which visited New Westminster presented figures showing that between April 1 and September 30, 1910, the importation of American shingles into Canada reached about 2,000,000. During the same period last year it climbed to something like 31,000,000 and between April 1 and September of this year reacher the large total of 102,000,000.

At one time Canadian shingles competed on good terms in the markets of the United States. The result was the placing of a duty of 50 cents a thousand on shingles entering the United States.

Great Future for B. C. Lumber Trade

Visiting Timber Owner Foresees Greatly Increased Markets After Opening of the Panama Canal

Mr. D. G. Curtis, president of the Erie Lumber Company, of Erie, Pa., who has large timber interests in British Columbia, is visiting on the coast. He is enthusiastic regarding the possibilities of the lumber industry following the opening of the Panama canal resulting in giving access to new markets on the Atlantic seaboard of North and South America.

The visitor and his associates have in contemplation the erection of a large sawmill up the coast to cater to that trade. Their holdings are estimated to exceed one billion feet, distributed at various points, including Huaskin Lake, Drury Inlet, Broughton Island, Gilford, Bute, Knight and Loughborough Inlets. They have been doing considerable logging at Huaskin Lake during the past three or four years.

Mr. Curtis' views are outlined in the following interview: "The rate on lumber, including canal tolls, from British Columbia ports to the Eastern Atlantic seaboard as far as Boston does not promise to exceed $10 per thousand feet, as compared with the prevailing all-rail rate of about $20. This will give the inferior grades of lumber of the Pacific coast access to a vast market throughout the Eastern and Middle States, in addition to a wider field on the east coast of South America.

"New York state is expending millions of dollars in building a ship canal from Buffalo to Albany, there connecting with deep-water navigation on the Hudson River. This canal will prove a great factor in ensuring cheap transportation of western lumber to the big centres in the interior. We are now selling coast cedar siding and shingles in that market in preference to anything that can be produced back there. Good timber of other kinds is also getting scarcer every year. It may surprise British Columbia millmen to know that Pennsylvania hemlock, the poorest variety of lumber turned out, is selling at the mills for $21 per thousand feet.

"At present the high rail freight rates prohibit the use there of anything but the highest grades of Pacific coast lumber. Under changed conditions the demand for western lumber of every grade will be enormous, ensuring wonderful prosperity for the industry in California, Oregon, Washington and British Columbia. Southern yellow pine makes very inferior lumber, but it is used very extensively in the northern and middle states."

With a forest area of 182,000,000 acres, estimated at 360,000,000,000 feet, British Columbia hopes to turn the Panama canal to advantage with regard to its lumber industries. In 1910 the timber cut of that wonderful province was 1,620,000,000 feet, worth approximately $25,000,000, nearly one-third of the entire cut of the Dominion. Lumber experts anticipate much greater activity in the industry.

At present, few mills in British Columbia are shippers of any consequence to Europe. Rates from Vancouver or the Fraser River to Europe through the Panama canal will be about $8 per 1,000 feet of lumber, as against $16 through the Suez canal to-day. Instead of costing $300 or more to ship a carload of 40,000 pounds of lumber from the Pacific to the Atlantic seaboard by rail, it will cost only in the neighborhood of $160 through the canal, even with the payment of canal tolls.

Cutting Ties from Dead Timber

Victoria, Nov. 18th.—Mr. H. R. MacMillan, chief forester of the province, returned recently from an extended trip to various points in the interior. At Greenwood he inspected the work which has been done in connection with the survey of the lands comprised in the Columbia and Western land grant. The survey, Mr. MacMillan says, is being carried on under considerable hardships owing to the season of the year. Local men, familiar with conditions, have shown themselves exceedingly unwilling to engage as packers, and the work has been more or less handicapped from this cause.

From Greenwood Mr. MacMillan took a trip along the Kettle Valley route to see what kind of country it is. He found it a good valley, with abundant timber. The right-of-way is being kept in excellent shape. At Nelson he met and received a report from the men who have been making an examination of the railway right-of-way in Southern British Columbia. These men are not only making a minute examination of the rights-of-way, but are preparing a map showing where there are any slashings or other debris, and where standing timber is to be found on the rights-of-way or in the immediate vicinity thereof. This information will be forwarded to the Dominion Board of Railway Commissioners, so that they may know how far their instructions have been carried out with reference to the precautions against fire. The maps also will be very useful to the provincial fire rangers next summer, as enabling them to know the location of the danger areas and govern themselves accordingly.

After a brief stay at Cranbrook and Fernie, where he met a number of lumbermen and made himself familiar with the local conditions, Mr. MacMillan proceeded to Tete Jaune Cache, the chief object of his tour being to inspect that district and to see what is being done in the way of tie-cutting for the Grand Trunk Pacific. The company has the right to cut ties on government land for its use in construction, and the government has been careful to see that this cutting is as much as possible confined to particular districts so that no unnecessary damage may be done to commercial timber. The company estimates that about 600,000 ties will be cut in the neighborhood of Tete Jaune Cache. Under its agreement it is entitled to take all of these from live wood, but an arrangement has been made with Mr. MacMillan whereby one-quarter of these ties, or 150,000, will be taken from wood fire-killed last year. This is in the nature of an experiment, as the chief forester is persuaded that this fire-killed wood will prove quite as durable as the live wood.

In this district also Mr. R. E. Benedict is going over the tie-cutting areas with the railway contractors in order to decide upon the disposal of the brush. Representatives of the railway have agreed to burn all the brush for a distance of three hundred feet on either side of the right-of-way. As an indication of the development which is to take place in the near future in the Upper Fraser Valley, Mr. MacMillan says that the firm with which Senator Edwards is identified has made arrangements to put in two sawmills which will each have a capacity of 175,000 feet per diem, and which will each yield to the province a daily revenue of about $80.

B. C. Timber Receipts for October

Departmental figures for October show a considerable increase in timber industry receipts by the Government. During the month 638 licenses were issued west of the Cascades, and 430 east of that boundary, the revenue from the former being $95,631.15 and from the latter $52,289.10. Transfer fees were $790; penalties, $1,928; royalty on sawlogs, $39,594.07; timber tax, $3,712.33; scaling fees, $4,081.51; registration of timber marks, $33; hand loggers' licenses, $175; lease rentals, $8,271.73; miscellaneous receipts, $2; a total of $206,504.89. Payments to the forest protection fund amounted to $11,135.54. Reports made by those in charge show that last season there were 109 fires in the Dominion Railway belt under the New Westminster agency, but only in one case was damage done to standing timber. This record was made owing to efficient patrol and favorable weather. The district is approximately 120 miles long by 20 miles, and extends from Port Moody to North Bend, on either side of the railway. Twenty-one rangers kept watch.

H. W. Johns-Manville Company Open Branch in Atlanta

The H. W. Johns-Manville Co. have recently opened a new southern warehouse at No. 31½ South Broad street, Atlanta, Ga. The entire building, embracing three floors and a basement, with a total floor area of about 10,000 square feet, will be utilized exclusively as a warehouse for a stock of such J-M products as roofing, boiler and pipe coverings, cements, packings, fire extinguishers, electrical, railway and automobile supplies. A feature of particular advantage in this new site will be found in the location of the Atlanta office of the H. W. Johns-Manville Co. in the same building with the local warehouse, which will materially help to minimize the chance of delay in deliveries.

Forest Surveys in British Columbia

By H. K. Robinson, Assistant Forester of B.C.

To quote from the address of the Hon. Mr. Ross on the guardianship of the public forests of British Columbia, we want to find out what forests we have and where they are.

The province is about 700 miles long and 400 miles wide, but about one-quarter of it need not be considered at the present time.

I will not repeat figures which have already been given by others, except to say that our work deals with an area of about 130 million acres, according to the latest and most conservative estimate.

At present very little is known about most of the province, and that information is held by a number of surveyors, prospectors, hunters, trappers and others, who are difficult to find and who when found cannot usually describe the country in the manner wanted by the Forest Administration, and have never looked at the country from the Forester's point of view.

In addition very little of the province has been surveyed. The coast line, international boundary, railways, patches of settled land in different parts, the Dominion Railway Belt, a few areas surveyed by the Geological Survey of Canada, and some of the leased and licensed timber areas are about all that has been done.

The work has been carried out by a large number of different agencies and is linked up by no triangulation of the country or system of townships.

Difficulty of Collecting Data

All this makes the collection of reliable data much more difficult, and without such data it is impossible to organize the province by districts for forest administration.

Our aim is to have at headquarters a map and a well arranged store of information from which we can see what land is timberland and what not timbered, according to the definition contained in the Land Act of British Columbia, which says that timbered land is land bearing 8,000 board feet or more to the acre in the country west of the Cascades and 5,000 board feet or more to the acre in the country east of the Cascades.

The timbered land again may be good, medium or poor, so we want to know roughly what the stand is in each part of the country.

We have no desire to make a close cruise, as it would serve no good purpose and be a waste of time and money, so we are contenting ourselves with an ocular estimate showing classes 0-5000, 5000-10,000, 10,000-20,000 and 20,000 board feet to the acre and up.

We also want the maps to show rivers, lakes, roads, trails and rough topography.

To obtain this ten forest assistants have been sent into the field. Each man obtains locally the transport and assistance he may require, and works on a detailed set of instructions. Wherever possible he takes a surveyed line like a piece of railway or boundary of the Dominion railway belt or the international boundary as his base and triangulates from that. Where existing surveys do not lend themselves for use as base lines he has to lay out a base line for himself and tie it on to some existing survey, as an example of this latter method, one forest assistant has made a base line between the tops of two hills, and made a transverse down to the tangent peg of a large curve on the line of the Canadian Northern Railway as a tie.

Each assistant has to build up a series of triangles and fill them with transverses or plane table work, or with both. He records the stand of timber in the four classes already mentioned and sketches in all burnt areas, showing the approximate age of the second growth on them. At the same time he has to keep a special look out for land suitable for agriculture, which is to be reported to headquarters without delay.

What the Maps Show

His map shows all rivers, lakes, roads and trails, and is supported by notes on species of trees, climate, logging facilities, water powers and anything else which is likely to be useful at headquarters. In addition, each party is provided with a camera, so as to be able to illustrate his report with photographs.

It is intended that the maps shall be on a scale of two inches to the mile, so that no feature covering an area of forty acres need be missed.

The protection of watersheds by the erection of forest reserves at strategic points is a very important matter, and the men in the field have been instructed to pay particular attention to it. They have also to report what they consider suitable lines for trails and telephones and suitable lookout stations for fire preventive work.

Qualified Men Scarce

The Forest Service of British Columbia is only about three months old, and qualified men are very hard to get for it. In consequence work has begun very late this year, but the short time left to us is not being wasted, and we are confident of completing our preliminary reconnaissance by the end of 1915. The chief difficulty I foresee is that as the country gets organized and divided into districts the greater number of my reconnaissance men will be turned in-

to supervisors and enough recruits will not be forthcoming to take their places, a fact that the young men of this country who are looking for an outdoor life should take careful note of. I may add for their benefit that not only is forestry a good open air life but is the most fascinating study that I can imagine.

It must be borne in mind that this is not an ordnance or geodetic survey and that inaccuracies are bound to creep in owing to the rough methods employed, but, in view of the fact that at present we have no information whatever on record, it is absolutely essential to us.

In every other country that has carried out a reconnaissance of its forests there has been some system of surveys on which to base the work over the greater part of the area, but British Columbia being a new country the difficulties are immensely increased, and there is nothing for it but to tackle the work and conquer the difficulties as they arise.

Effect of Timber Values on Operations

Forest Trees the Cheapest of All Crops in United States Even at Present Prices—Interesting Consideration of an All-Important Question

By Robert Fullerton*

The value and importance we attach to natural resources is based on the abundance and not on the time or labor cost required in their production or reproduction. The one time supposed limitless area of virgin forest lands in the United States seeded by Mother Nature with no human aid and maturing for centuries on the unexplored, untaxed public domain, was considered of little or no value; a sort of elemental inheritance like water and sunshine, often looked upon as an obstructing, expensive embargo in the civilizing progress of the pioneer homesteader when clearing his land for the cultivation and production of necessary food crops. Some modern industrial critics with little knowledge of early pioneer times, or lacking capacity to rightly understand conditions confronting the homesteader and the lumberman in their strenuous efforts to make a living in the wilderness outposts of civilization, accuse these hard working nation builders of thoughtless predatory vandalism and wanton wastefulness of an indispensable natural resource. Going back to colonial times, the abundance of growing timber in New England was often considered a nuisance; a troublesome hardship to be cut down and burned up to clear the land for farming purposes.

A forest of giant oaks or towering pines is a beautiful sight and fills the eye with delight. But our forefathers, while appreciating the beauty and value of their forest resources, could not subsist on the diet of acorns, and pine cones, and the obstructing forest trees had to surrender their first lien to the soil and the sunshine to make room for some food producing crop. The American oak had to make way for the Irish potato and the pine and the spruce were deadened and destroyed that corn and wheat might grow. Our forefathers slaughtered their forest trees that mankind might live; a survival of the fittest, that calls for no apology from the generations that preceded us.

The first settlers in this country were poor and proverbial for economy; they wasted nothing that seemed to them of value; they came from countries where timber was scarce and highly prized; to cut magnificent groves of pine and oak trees that had been maturing for centuries, and consign their splendid lumber-making trunks to the flames, must have occasioned a feeling akin to sacrilege in the minds of Puritan pioneer homesteaders. No settler at any time ever cut down valuable timber from a spirit of pure rapacity, and no lumberman ever permitted a single log to rot in the woods, if there was any visible or prospective profit in hauling such logs to his mill and converting them into lumber.

This statement does not imply that farmers have not destroyed and wasted much valuable timber, and that lumbermen have not left millions of logs in the woods to rot and burn up, but in every instance where a farmer destroyed obstructing timber, it was done from absolute necessity, and the lumbermen left low grade logs to waste in the woods rather than involve himself and his associates in bankruptcy, as the market price obtainable for lumber made from such logs, was less than the labor cost of its production. Lumbermen who own and operate saw mills are more interested in saving and utilizing their forest resources than any altrustic politicians demanding legislation to compel the American people to practice economy and avoid waste in the management of their business.

When the individual becomes the owner of any resource, it requires no legislation to compel him to take care of his own. Zealous but impractical advocates of conservation, newspaper and magazine muckrackers, political demagogues and insurgent office-seekers, have in late years joined in a chorus of indignation and condemnation of American lumbermen as predatory robber barons, united in law-defying combinations, branded as undesirable citizens, public enemies wasting and exploiting the people's inheritance of forest resources. Consumers of forest products, childlike in their requirements, want to eat their cake and have it too; demanding cheap lumber which means the rapid slaughter of our lumber-making forest trees. Any concerted limitation of the production of lumber to correspond with the demand is looked upon as a crime, a violation of the Sherman anti-conservation law. The cheapest commodity in the United States to-day is forest trees, suitable for saw logs, the present price of stumpage, whether it be hard wood or soft wood, is only a fraction of what it would cost if the trees had to be grown like any other soil crop.

Twenty-five or thirty years ago, forest trees in this country had only a nominal value and lumber prices were based on the cost of bringing the logs from the woods to the mill and converting them into lumber, the value of the raw material or stumpage being only a few cents per thousand feet. Under such conditions only the large mature trees easily accessible and of good quality were harvested by lumbermen and all inferior or defective logs were left in the woods to rot or add fuel to recurring forest fires. Good lumber was so cheap that low grades could not be sold for the cost of production and freight charges to points of consumption.

The need or importance of conserving our forest resources received little thought or consideration. Timber lands were cheap and abundant. The magnificent forests of the Pacific Coast States were just being explored, cruised and estimated, revealing a supposed limitless supply of the finest lumber-making trees in the world. The yellow pine of the Southern States was first beginning to attract the attention of northern lumbermen whose stumpage holdings in the white pine forests of Michigan, Wisconsin and Minnesota began to show signs of exhaustion, and a corresponding enhancement in stumpage values. The development of these new forest resources kept lumber cheap. Select timber lands selling at two to five dollars an acre, yielding ten to twenty thousand feet to the acre, made a choice pine or oak tree scaling one thousand feet worth less than fifty cents.

Contrast the nominal value placed on this superb forest tree that had been growing and maturing for a hundred or two hundred years, surviving the hazard of devastating cyclones, insect ravages and destructive forest fires, with the cost of such a tree, if planted by the hands of human foresters, the land on which it grew progressively taxed for a hundred years, the capital invested in the forest farm doubling itself every ten years through interest and taxes compounded. Suppose our forest resources were exhausted and the American farmer, forester or lumberman should undertake to grow forest trees for profit, assuming that lands suitable for forest growth could be obtained for $5.00 an acre and, allowing $3.00 an acre for planting and protecting the young trees from fire, he would start with an investment of $8.00 an acre, the first year. In ten years his investment has doubled by the addition of annual taxes and interest charges compounded. At the end of ten years his investment is $16.00 an acre. Continuing this calculation, at the end of seventy years, the sons and grandsons of the original planters would find their inherited holdings in growing timber representing an investment of $1,000.00 an acre; and, suppose the forest crop has now reached sufficient maturity to be manufactured into lumber, having escaped the hazard of fires and cyclones and yielding 20,000 feet of merchantable logs to the acre, we find a stumpage cost of $50.00 a thousand for immature timber grown to order in contrast with a present average stumpage price of $5.00 per thousand now obtained for giant forest trees that have been seeded and matured in Nature's forests since Columbus discovered America.

The above figures reveal the low estimate we place on a natural resource that is fast being exhausted. The consumers of lumber complain at any advance in its price and saw mill owners confronted with annually increasing taxes on their reserves of standing timber, cannot limit their operations. Their stumpage must be cut into lumber and sold at competitive prices to pay taxes, deferred interest and principal on his bonded raw material. Not one lumber manufacturer in a hundred can afford to conserve his forest resources by cutting only the mature trees which would double the cost of log-

*Reprinted from American Forestry.

ging operations, making his product thus obtained so expensive that no profit would result.

Stumpage values in recent years have steadily increased in value, but even at present prices, forest trees are the cheapest crop that grows out of the ground; cheaper than cotton at two cents a pound or corn at five cents a bushel. Suppose wheat or corn were century plants like pine and oak trees; it would require an adding machine to compute the price of a loaf of bread.

The American people do not realize or fully appreciate the splendid quality and low price at which they have been buying their forest products, demanding clear or high grade lumber for many purposes, when lower grades would economically have served their purpose. Extreme cheapness in any commodity always results in waste and improvidence in its use.

Fifty years ago our western plains were stocked with great herds of buffalo, a nature product, common property, roaming the prairies unowned, costing no man anything for sheltering, care or pasturage, tempting the cupidity of reckless pot hunters to proceed to their wholesale slaughter, the hide and tongue being the only parts of this valuable animal resource of sufficient value to be profitably transported and sold in competition and substitution of domestic products for a like use. It is hardly believable by the present generation that fifty years ago a full grown buffalo, in prime condition, weighing one thousand pounds, had a less market value than a single porterhouse steak served to-day in any first-class hotel or restaurant.

There is no immediate danger of a serious shortage in our supply of lumber products, but the time has come when conservation of our forest resources demands thoughtful consideration. The National forest reserves should be withdrawn from sale and held in cold storage just as long as privately owned stumpage is cheap and abundant. The present sawmill owners are financially unable to pracice effective conservation of their stumpage holdings. Increasing annual taxation of forest lands, and the exceptional nature of lumbering operations, requiring the purchase of extensive timber holdings to provide raw material sufficient to keep their saw mills supplied with logs long enough to justify the investment in building and equipping a modern plant to manufacture lumber, necessitating the owners of saw mills to borrow large sums of money, or bond their reserves of standing timber.

The pressing interest charges, added to the increasing annual taxes on his stumpage holdings, force the continuous operation of the saw mill, and the sale of the product at whatever the market price may be, to furnish means to pay his imperative obligations. This is not a theory but a condition governing the lumber industry, making conservation of privately owned forests impracticable except in rare cases where ample capital enables the operator to cut only the mature trees, preserving and protecting the younger growth, hoping that advancing prices of stumpage will repay him for present loss through his more expensive logging operations.

Human nature shows very little change since the days of Solomon; self interest in large measure still controls our actions. Conservation of our privately owned forest resources will never become effective until there is a present or prospective profit in practicing conservation. Our National forest reserves, now under legislative control and administration, should be supplemented by the several State governments, as only the Nation or the State can afford to hold forest lands in reservation. The cost of protection and reforestation being borne by all the people, forest lands now held by the State or the Nation should be withdrawn from sale, protected against fire and reserved for future use, following the wise providence of the rulers of Egypt, who in years of plenty stored up their corn against the time of scarcity or famine.

Canada's Trade in Paper

The imports into Canada during the five months ending August of the present year had a value of $3,280,051. During the same period of last year the value was $2,462,696. The United States continues to be the principal source of supply, and the imports from that country for the period of this year, covering which statistics have just been issued by the Department of Trade and Commerce, totalled $2,250,969, and those from Great Britain $712,165.

The exports of wood blocks for pulp, toward the prevention of which, by means of a prohibitive export duty, advances have recently been made to the Canadian Government, increased from $2,568,352 to $2,950,505, the United States providing a market for all the pulp wood shipped from the country. The same country took wood pulp from Canada amounting to $1,650,941 out of a total of $1.950,516 exported during the period. The value that went to Great Britain was $287,937. Last year's total for the period was $1,902,950.

Paper exports also increased substantially, the value for the five months of last year being $1,414,648, as compared with $1,786,067 this year. To the United States the exports during the period of this year covered by the figures amounted to $1,066,000.

Ontario's Forestry Commissioner

Prof. E. J. Zavitz
Ontario Commissioner of Forestry

Prof. E. J. Zavitz, of the Guelph Agricultural College, has been appointed Forestry Commissioner for Ontario, a new position in connection with the Department of Lands, Forests and Mines. In his new office Professor Zavitz will advise the department with regard to all matters of cutting. No lumbering operations will in future be allowed without his recommendation. He will see to the destruction of debris and slash from lumbering, and will also deal with re-forestation and conservation on a general scale. The principal work of Professor Zavitz heretofore has been in connection with the re-forestation scheme in Norfolk County, where some 1,500 acres of waste land are being reclaimed. Considerable reorganization will immediately be carried out, at the conclusion of which the Government will extend the work of reclaiming waste areas.

As provincial forester, Prof. Zavitz will be connected with the Department of Lands, Forests and Mines. While reforestation on the waste lands of old Ontario will, of course, be made a part of the government's forestry policy, it is likely that for a time Prof. Zavitz will give particular attention to Northern Ontario.

Until other arrangements are made Prof. Zavitz will continue his lectures at the Ontario Agricultural College and his supervision of the Norfolk reforesting station. It is probable that in the organization of the work the Norfolk station will be turned over by the department of agriculture to the new branch of the service.

Good Times Ahead for Lumbermen

Alexander Maclaren, Buckingham, P.Q., who is largely interested in lumbering operations in British Columbia, as well as in Quebec Province, and who is on a visit to British Columbia, gives it as his opinion that the lumber trade of British Columbia may expect a big building year in 1913. In fact he believes that this will apply pretty generally to the whole of Canada.

"I make this prediction because of the crops," he said. "As everyone pretty well knows by this time, this year's harvest has been a very good one, and in this country crops are everything.

"An additional element going to insure a prosperous year in lumber here, is that the same condition as to crops obtains this season in the United States. When crops are not quite up to the mark in the States, the lumbermen there dump their products into Canada. This time, however, their home prosperity will take up their yield, and leave the Canadian lumbermen to handle the Dominion demand, unmolested.

"It is especially gratifying to look forward to a good building year, because business, for a short while past, has been somewhat quiet. With plenty of money at his command, however, the farmer has means with which to improve his place, and put up houses and barns, and to invest in real estate. That has been the invariable history in Canada, and will be repeated next year."

Sudden Death of C. W. Leonard

Mr. Charles Weston Leonard, of the firm of E. Leonard & Sons, London, Ont., manufacturers of engines and boilers, died suddenly on November 22nd. Mr. Leonard had been enjoying his usual good health and had attended to his business at the office on the day previous. He retired that night in apparently good health, but death came at an early hour in the morning. Mr. Leonard was the third son of the late Hon. Elijah Leonard and had lived all his life in London. After attending school at London and at Upper Canada College, Toronto, he became a partner in the business of E. Leonard & Sons in 1873. He is survived by his wife, one daughter, two sisters and one brother, Mr. Frank E. Leonard, of the same firm. Mr. C. W. Leonard was well known to lumber manufacturers in all parts of Canada.

Personal News of Interest to Lumbermen

An Enterprising New Ottawa Concern

The firm of D. G. Gilmour & Co. of Ottawa, have recently taken over the lumber and pulpwood interests formerly operated by Mr. D. G. Gilmour of that city, including the large new saw mill at Kazabazua, Quebec. Just at the incorporation of this company the mill was completed destroyed by fire, but with the aggressiveness which has characterized both members of this firm in their past connection with the lumber business, preparations were at once made for rebuilding and they have now completed at Kazabazua one of the most modern mills in that section of the country.

Mr. D. G. Gilmour is a son of the late John Gilmour who was one of the most successful lumbermen in Eastern Canada, building up the extensive business now carried on by Gilmour & Hughson of Hull, Que., of which Mr. D. G. Gilmour is now vice-president. Besides his connection with this firm Mr. Gilmour was interested in several other lumber operations in the Ottawa Valley.

Mr. John A. Belford, his partner, is equally well known in the Ottawa Valley. Prior to joining forces with Mr. Gilmour he was for sixteen years connected with the firm of W. C. Edwards & Co., Ltd., of Ottawa, rising in the ranks steadily until he became office manager of that large concern.

Ottawa has been and is the headquarters of some of the largest

D. G. Gilmour, Ottawa

John A. Bedford, Ottawa

and most successful lumbering interests in the Dominion and the many friends of the new company predict an equally successful career for D. G. Gilmour & Co., and wish them every success in their new venture in which the Canada Lumberman heartily joins.

W. J. MacBeth, of the Parry Sound Lumber Company, Toronto, and C. G. MacBeth, of the R. Laidlaw Lumber Company, Toronto, recently made a two weeks' business visit to New Brunswick. They purchased a quantity of New Brunswick pine and spruce for their respective firms and report that they are able to dispose of the stock to considerable advantage. They also report that the manufacturers in New Brunswick are turning more extensively to the markets of Ontario and the Eastern States on account of the high freight rates prevailing for ocean shipments.

Two years ago George Barbey, a French capitalist largely interested in the West, bought thirteen timber limits on Howe Sound for $300,000, on the representation that they held 300,000,000 feet of timber. A more recent cruise places the figure at 50,000,000 feet, and now he is suing to have the agreement of sale set aside, or in the alternative damages to the extent of $350,000. The defendants are J. B. Marquette, original owner of the limits; J. G. and J. D. Allan, who held an option and sold to Mr. Barbey; Ed. Francis, Mr. Barbey's agent; Louis Alexander, a broker associated with Mr. Francis, and J. A. Judy, who cruised the limits in Mr. Barbey's interests.

Mr. James M. Scott of Fredericton, N.B., has purchased a portable mill from Alexander Watson, of St. John, and plans to operate it on the St. John river about eight miles below Woodstock. Work has been begun on the erection of the mill building near Woodstock, and Mr. Scott will manufacture laths and ties during the winter.

New Chief of Forest Survey Inspection

Mr. H. Claughton-Wallin

Mr. H. Claughton-Wallin has been appointed to take charge of the inspection of forest surveys under the Forestry Branch of the Department of the Interior. Mr. Wallin is a native of Sweden and took his forestry course in that country at the Royal Forest Institute at Stockholm, from which he graduated in 1902. He was first employed supervising logging operations in Sweden, and then decided to try his fortunes in Canada. On his arrival here he was employed for a short time in the engineering department of the Canadian Pacific Railway and later entered the Forest Service of the Dominion. He did nursery work and forestry survey work during several years for the Forestry Branch, and then returned to Sweden for two years to make a further study of Swedish methods. On his return from Sweden he was again employed in the service of the Dominion on various forest surveys, particularly in the province of British Columbia. The reports and maps of forest surveys which were submitted by him proved so thoroughly satisfactory that it was decided to transfer him to Ottawa in general charge of the development of the forest service work which is so important a division of the work of the Forestry Branch.

The forest survey division will have charge of the laying out of methods of survey on the forest lands of the Dominion, the preparing of the instructions for such surveys and the working out of efficient equipment for survey parties, and the methods of mapping and compiling data to be employed. The surveys will include exploratory surveys to determine where the tracts of timber and of non-agricultural lands, including forest reserves, are located; timber surveys to ascertain the quantities and condition of the timber on special tracts, and the methods of mapping the results of surveys. For this purpose a general map legend has been worked out carefully, and it is hoped that it will be generally adopted for forest mapping throughout the Dominion.

Sweden is of all countries in Europe perhaps the one which most nearly approaches Canada in forest conditions, and the experience gained by a training in Sweden will be exceedingly useful in Canada. Sweden took up the question of forest surveys some sixty years ago and has improved its methods very much, but as compared with the methods employed in Germany they are not so far advanced and therefore the methods employed there can be more readily employed or adapted to Canadian conditions. The Royal Forest Institute of Stockholm requires a very thorough course in forestry. The entrance to the Institute is by competitive examination, and as not more than twenty or thirty students are accepted each year, while there are usually applications from one hundred to two hundred, it will be seen that the requirements for the course in this Institute are very high.

The Thurston Flavelle Lumber Company, Ltd., Port Moody, B. C., successors to the Emerson Lumber Company, Ltd., intend to push the sale of their cedar products in Ontario, and to this end have appointed the Gull River Lumber Company, Ltd., with head office at Lindsay, Ont., their representatives for the province. In addition to all classes of cedar lumber, the Thurston Flavelle Company manufacture a high grade red cedar shingle which is in strong demand on the prairies and throughout Ontario.

W. J. MacBeth, of the Parry Sound Lumber Company, Toronto, who is well known to the lumber trade of Eastern Canada as one of the most successful and genial travellers on the road, is a candidate for election to the Commercial Travellers' Board. There is a field of 14 candidates, from whom 9 are to be selected. Ballot papers will be sent out soon and it is to be hoped that readers of the Canada Lumberman who have a vote will do their best to see that he is elected to represent them on that important body.

R. E. Edwards, Vice-president and General Manager of the Wolverine Cedar and Lumber Company, Little Current, Ont., was in Toronto on a business visit recently.

THE WOODWORKER

Making a Wooden Cone Pulley

If one desires to construct a cheap cone pulley, let him take a board of 2-in. dressed stuff, and on this, with a compass, mark out the different sized circles he needs. After sawing these out with the band saw, let him glue and nail one piece upon the other, making one solid chunk. Through the center of this let a hole be bored just large enough to allow the spindle to be driven in tightly. Placed in the lathe on this spindle, the whole thing may be finished off in a jiffy, to the required dimensions, without further ado, actually ready for immediate use.

But this hastily-put-together product, after all, is a poor excuse for a real cone pulley. Built of solid blocks, these will be more or less subject to shrinkage, while the chances are that one or more will split in course of time. There is really nothing to prevent these undesirable results in a pulley thus shabbily and hurriedly thrown together. Every once in a while it will need retouching to avoid a wobbling motion of the belt or uneven running of the machine, two extremely objectionable features in any kind of a pulley.

Now, to build a real strong, serviceable cone pulley, such as will last a lifetime, if need be, an entirely different plan from the foregoing must be adopted. In this instance, the pulley will need to

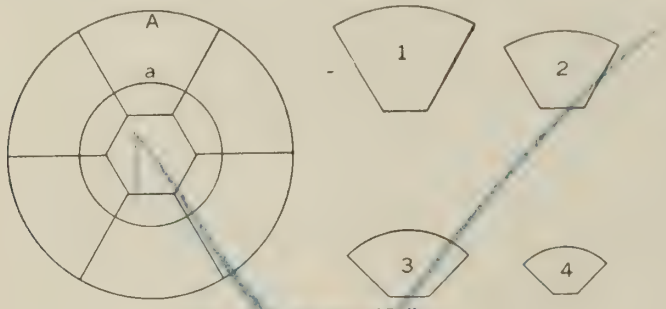


Fig. 1—Construction of Pulley.

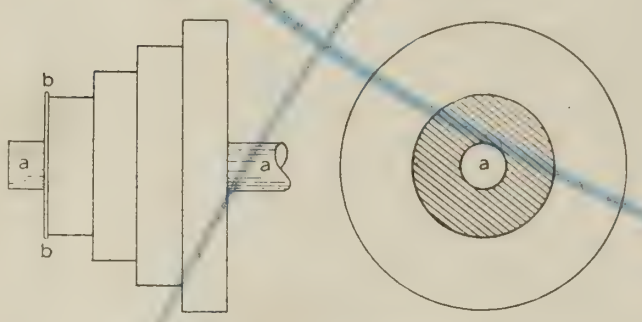


Fig. 2—The Finished Pulley.

be built up gradually, on a regular raceplate, and of thin material. In fact, each step should consist of no less than three separate layers of segments, each course, in turn, being firmly glued and nailed onto the other.

To be sure, this work is slow, tedious and runs away with considerable time, but when done the result will more than repay all extra trouble. An article will be produced at once solid and unshrinkable, destined to stand the wear and tear of many years of hard usage.

Fig. 1 will help to give the reader a clear idea of the work of construction, showing, as it does, the largest sized step in the pulley. As will be seen, this consists of six segments, ¾-in. in thickness in this case, and each corresponding in size to 1. Of these segments, there are three courses in each step. In the same way also are built the smaller steps, consisting of segments tallying with 2, 3 and 4, only in the case of 3 and 4 the number of segments is four instead of six. Each one is fitted snugly to its place and fastened on with glue and nails. Thus the process continues until the whole structure is completed.

Of course, at this stage of the work the pulley still remains in a rough, unfinished condition, and needs smoothing off and turning down to its proper size and shape. In order to do this, a recess 3/16 in. deep is turned in the surface of A, as shown by circle a. In this a thin brass plate is inserted, flush with the face, and firmly screwed to the wood. In the center of this plate, as indicated in Fig. 2, a, a hole 1½ in. in diameter is bored for the insertion of a spindle.

On the small side of the pulley, Fig. 2, b b, another thin brass plate is screwed on, with this difference, however, that in this latter case the recess of ⅛-in. is in the plate to allow it to slip over the small end. This also is screwed on, and contains a center hole corresponding in size to the one in the other plate. The next step, of course, is to drive in the spindle, care being taken to fasten the pulley firmly upon it at the point desired. With all these details attended to, the whole thing can then be placed in the lathe to undergo the finishing touches, a matter that need consume only an hour or two.

When the turning is done it is always advisable to give the whole surface at least two coats of shellac varnish, both for the sake of improving its appearance and protecting it from the harmful effect of the atmosphere.

As to the kind of material advisable to use in a job of this description, it may be said that ordinary pine will answer very well, in case one can afford nothing better. But if a person desires an article that will stand the wear and tear of long years of service, and give him no trouble to keep in good order, he should by all means use mahogany, because there seems to be no wearing out of this wood.

I know of a mahogany cone pulley that has been in constant use on a lathe for a period of over forty years, and is so well preserved to-day that it looks as if in condition to last that of time again, if not longer. It is just as strong and runs just as true to-day as when first placed on the machine. It has never given the owner a bit of trouble. So, for a strong, lasting, serviceable cone pulley, there is no material comparable to mahogany.

Fig. 2 is designed mainly to show the finished article, with the brass plates and spindle inserted in their respective places.—The Woodworker, Indianapolis.

Planing Mill Management

By N. J. Millette

Part III

The foreman in a woodworking plant could fittingly be termed the manager's right hand. He is the man who delivers the orders, recommendations, rules and criticisms of the manager. The men's interest in the factory's welfare will be good or bad, according to the foreman's comment (unless there be something radically wrong). If the men are not in touch with the situation as it exists the foreman is the one to look to for an explanation.

One word of the foreman can counteract a whole speech from the manager, and unless the foreman is loyal, faithful and true, it is unreasonable to expect a loyal disposition on the part of the men. Therefore the manager should cultivate the foreman. He should understand clearly the foreman's disposition and ability and should be able to depend on his carrying out to the extent of his power all his duties. In this way the manager will be able to stand by all his orders and comments, and if the men know that the foreman's decision will not be changed, it will cut short many discussions.

On the other hand the foreman should not take any important action unless it is in accord with the factory rules, and all his actions should be directed with these rules in view. If the men can see in the foreman's conduct, a true and faithful administration, his task will be easy in handling the men. The foreman's loyalty has so much effect upon the men that he will have little necessity to enforce his authority by speech if his actions are right. If he uses the factory's influence to carry out a personal idea regarding some employee over whom he has lost part of his control, and then gets him turned down by the manager his authority is defeated. It is impossible to regain lost power.

Look After the Little Details

A common fault which we all possess more or less is that of neglecting minor details. A person often looks for a more responsible job, at the same time feeling the annoyance of the small details of his present occupation and neglects them. This is the greatest mistake that a man can make. He might believe that a "big job" involves fewer small things to look after, and that is where the man makes a mistake. Every job has its little details, and unless they are all attended to, and on time, they will make trouble, as a little thing deliberately overlooked will affect a man's credit more than the value of the neglected item.

If the writer could have a word of warning to address he would say, take good cars of the small details of your present occupation and a better situation may come to you sooner than you will really feel prepared for it.

If the situation you are holding is not worth your entire attention and ability, drop it. Get to work where you will be able to devote all your talent and attention for your employer and be confident that it will turn sooner or later for your own benefit.

Protecting the Employees

Planing mills are often the scene of serious accidents. Frequently a man will be crippled. The majority of these cases are due to neglect of the operator personally, but many of these can be avoided by the vigilance of the foreman. It is his duty to follow the operations and insist on having the men work in such a way as to protect themselves. Each factory has its own peculiar machines and its particular points about the manufacture of stock, as well as the methods of operating. The foreman is supposed to be familiar with these details. The stranger (even if he is an experienced man) may feel a little uneasy and take a poor method of doing his work and run the risk of an accident. Constant vigilance of the foreman can do more good for the men than any form of education, to render planing mills as safe for the employees as any other branch of the industry.

A Successful Combination

I have been for about two years taking care of a combination rip and resaw, and never handled a better mill for the size. The wheels are 3-in. face and we run 4-in. saws on them, and can give a good man all he wants to do to take away the lumber. The wheels are crowning, and I am never troubled with cracks. There is not much room for a 4-in. saw to go either back or forward without striking iron, but we only watch it closely until the saw wears down some. Of course, that takes some time, for I don't believe in doing as some filers do, put the saw on the grinder and let it grind for an hour or more. I grind once around on the face and back, then take it off the face and go over the back once, and it is as sharp as it can be made. What is the use of doing more? It only wears out saws and emery wheels. Of course, when I swage I have to go over them oftener, as you have to get the steel from somewhere, to spread out. I have my swage turn the point down, so I don't have to grind off the face much —never more than twice around. Then, when I have to get a very strong corner for hardwood, the balance has to come off the back, and that keeps the teeth from getting hollow backs.

There is a cast iron piece that goes on this mill that takes the place of the boards a former correspondent spoke of clamping on behind the rolls. We saw some lumber so crooked I don't see how the saw follows the crooks. So you see there is one combination that is a good one, at least.

As to a short-log mill, I think a better way than having long and short saws is to have the top guide come off and give room for a large log. You need not be afraid to take it off if your saws are running right. In a Wisconsin mill the sawyer run the log against the upper guide and broke it off. All thought we would have to shut down, but I told them to go ahead and try. We ran two weeks without the upper guide, and made good lumber, until the new pieces came. I had a notion to not put them on, but the sawyer thought he could push a little harder, so I put on the guide.

There are mills that have removable upper guides and the arm can be run up close to the upper wheel. I was taking care of a mill in North Carolina where we had a good many very large poplar logs, and the upper guide would not go up near the upper wheel—not within 8-in. They used to chop a place for the guide the whole length of the log, and sometimes had to do so on two sides of the log. Of course, the mill was idle while they were chopping. Once a chip flew under the saw as it went over the top wheel and cracked the saw about 3 inches. It certainly did snap when it went over. I wanted the foreman to have a piece cast that would raise the guide 8 inches, but he never did, but kept on chopping.—D. J. Wood.

Communications—A New One

Here is a new one for the boys to chew the rag about. One of our most successful filers claims that a band saw will do better work, and stand the greatest feed, if it oscillates. If his saws come "true" from the shop, he puts the oscillation into them. He has no fixed rule as to the extent of this movement edgewise, but his saws all look to run about the same, and, measuring the movement by the eye, I would think they oscillate from ⅛-in. to ¼-in.

We all know—that is, every filer or sawyer that wants to know "why"—that the oscillation is put into the gang saw to clear the teeth on the upward stroke, especially where the feed is continuous. I have asked this filer if he can give me the theoretical reason for the better work of his oscillating saws, over that of the ones that run true edgewise, but he fails to give me an answer. He says he has them to oscillate because they do better and more work, and are less liable to dodge or snake when the feed is crowded.

Now, if he is correct in his method—and he claims he can demonstrate it in practice—I would be pleased to have some of the experts explain the why, or refute it, as the idea may look to them.

It is unpardonable for a filer to allow cracks in the back of a saw. I have a friend who is a filer (my apprentice twenty-two years ago), who says it is onto the filer to have cracks at any point in his saws. As a matter of fact he does not have any on his saws. Another filer of my acquaintance has a standing offer to me of $5 for every crack I can find in his log bands or resaw bands, and after five years of watching his saws I have the first money to yet collect from him. I have sold his employers all the saws they have used during this time (Disston's) for a 9-ft. band and a 6-ft. McDonough resaw. They cut principally oak and largely quartered, and their annual cut is about 10,000,000 feet, with a two or three months' vacation in midsummer.

Now, boys, speaking of cracks, take a crack at the oscillating idea. Some of you older fellows may remember that I once wrote an article entitled, "Why Band Saws Crack." I now wish to amend the reasons I gave, by saying "because they don't crack if properly handled"—supposing, of course, they are the right brand to start with.—J. D. in the Wood-Worker, Indianapolis.

Jointing—Resaw Trouble

Keeping a round saw round without jointing may be possible, but when a few teeth only get dull, then a little jointing will make the saw round, because the saw will not get dull in one place and then another if it is round. What I mean is, a round saw that is round. For gang edger saws or saws for rough ripping, it is not necessary to joint them, for they can be filed so they will work all right, and keep fairly round, but if you want to keep an 18-gauge 18 or 20-in. resaw round, a little jointing will do it good. I say a little. Do not joint except when necessary, and then lightly. When a few teeth only get dull, the round saw is not round.

In an automobile body shop there was a small band resaw using a 3-in. saw. It was a machine in which the feed rolls would swing back out of the way and they could use a narrow saw for scroll work. They had been having trouble, and got some new saws, but the first one tried would not go. I had seen this machine before and noticed the trouble, so I told the filer what I would do.

This saw would run all right at top and bottom of the cut, and run clear out in the middle of a board 20 inches wide by 1 inch thick, in resawing it ½ inch thick. The straining device had weights for each width of saw, but when they put on the resaw the weight was not enough. They thought it was because the bottom boxes would get hot. As I had told him to put on the weight, he did, and the boxes melted out. He rebabbitted them, lined the roller up perfectly with the saw, filed the saw—for it was poorly filed, although it had just come from the factory—and the saw has done perfect work since.

The trouble was; not enough weight on the straining lever, the saw was not filed square, and the swage was too heavy on one side.

—S. W. McLean.

Cost Finding—Its Importance to Success

By G. E. Collins

In recent years, the question of cost accounting has become an absolute necessity; both large and small corporations are realizing its importance.

In the pioneer days of lumbering the main object of the lumberman was to turn his product into money and his profits were represented by what was left of this medium at the end of the year. Prices were based on what the buyer would pay and the manufacturer peddled his product without regard to its cost; indeed he had no idea of the cost. Land and timber rights were bought for a song, and were not counted at all in the estimate of the value of the lumber.

How envious must the modern lumber manufacturer be of his pioneer predecessors; not envious of their partial success, but rather of their opportunities. The great forests of these former days are now practically denuded and the farms and stumps are all that are left to conjure up the dreams of what might have been. But the history of all human endeavor teaches us that the "what might have been" in the past can be and may be in the present, if we will profit by the two great elements of success, the experience of the past and the improvements of the present. These two factors judiciously combined will surely make the triumph of the future.

The practically free stumpage of the past has melted into the past; cheap labor and cheap living of former days have disappeared and will not return; cheap, unclassified transportation charges and run-of-the-log sales are ancient history, and thus it would seem that the opportunities for profit in the lumber business have gone with these conditions. Let us see if this is true—timber rights to-day cost money, big money, but modern methods of accounting can determine almost to exactness how much per thousand feet that cost is.

Modern logging, while entailing a large initial investment, gets results; and a proper system of operating expense will tell you, when the logs are in your mill pool, just what it has cost to put them there. Modern labor is more costly than that of bygone days, but the advent of modern machinery and the constantly developing efficiency of labor

are productive of results that probably offset the increased wage. Transportation charges are definite and the modern band saw provides for accuracy in weights. Lumber is sold to-day in grades that are so uniform as to allow an exact grading at the mill, and it is not difficult to arrive at the result of the run-of-the-log.

Probably a more important consideration than all these is the fact that prices are now fixed; not that this fact supposes a trust, but it is nevertheless a fact that manufactured lumber has now a definite value in contrast to the old method of peddling in the market, and the manufacturer knows just what he can get for his product.

Now, by comparison of conditions, the lumberman of to-day is better equipped to make real profits and know what they are, than was his pioneer predecessor, if he takes advantage of modern methods. He must needs know:

The actual cost of his timber on the stump, irrespective of future land value of the fee, if he owns it.

The cost of cutting and delivering the logs always keeping in mind the cost of the logging plant, its depreciation and future value when the tract is cut.

The cost of manufacturing and piling from the pond to the sticks, always keeping in mind the depreciation of machinery and buildings.

The cost of shipping and the cost of selling. Finally, the products' share of the overhead and executive cost.

These figures are indispensable to the manufacturer in managing the mechanical end of the business efficiently.

The successful operator to-day is he who maintains a balance of profit among a complexity of receipts and expenses. The delicacy of the balance demands an accurate and minute knowledge of costs in every department of production. Without it there can be little efficiency—or little success. For under present-day conditions efficiency means success.

Of Course it Paid

I have always been an advocate of close kerf and keen cutting corners, but am surprised how recklessly timber is cut at this late day. Some years ago a careful test was made in a large white pine mill, by running 16-gauge saws on one mill, set 1⅛-in. to get a 1-in. board, while the other two mills used 14-gauge saws, set 13/16-in. for a 1-in. board. The cut dropped 5,000 feet a day, log scale, for the whole mill, but it was found that the overrun in lumber was more than sufficient to pay for the experiment, so the 14-gauge saws were sent to the factory and ground down to 16-gauge for the next season's run. The result proved very satisfactory, although the cost of sawing was raised 9c per 1,000 feet log scale, but they claimed they had five per cent. more merchantable lumber in the yard, out of the same class of logs. It ought not to take a good lumberman long to figure out a handsome profit on that.

Did I work in that mill? Well, yes. I filed saws there for some three years. Our foreman had a way of his own to manage things. For instance, he said: "Now boys, I want each of you to file for one band mill. I will give you each a complete outfit, and then see who can put up the best figures at the head of the log slide." It kept us hustling, but I managed to keep near the top. I didn't take chances on saws, either. Every tooth had to be fitted as nearly perfect as possible. No guesswork about the gauge of swage, either. Hardly ever did I put a saw on the mill more than twice before looking the tension over on the bench. You ask, did it pay? Well, the firm must have thought it did, else it would not have been so anxious to continue such work.—J. F. P.

Business Booming in the West

Mr. M. Walters, of H. Walters & Sons, Limited, Hull, P.Q., manufacturers of saws, axes, axe handles, lumbering and logging tools, machine knives, etc., returned recently from an extended trip to the Pacific Coast in the interests of his firm. Mr. Walters reports that the prospects for business in western Canada are most encouraging and he is enthusiastic over the opportunities for increasing the trade of his own firm in the West. As a result of Mr. Walter's trip, the firm have decided to cater strongly for western business. They anticipate doubling the capacity of their present plant in the near future so as to be able to take care of their rapidly increasing business.

Sash and Door Association Meeting

A meeting of the Ontario Sash and Door Association will be held at the King Edward Hotel, Toronto, on Friday, December 13th, at 11.30 a.m. At the last meeting, which was reported in our issue of November 15th, some very important points were brought up for the consideration of the members. A report will no doubt be forthcoming from the Committee which was appointed to go into the question of the importation of United States doors into Canada, and it is hoped that all who are interested in this subject will make a special effort to be present at the meeting on December 13th.

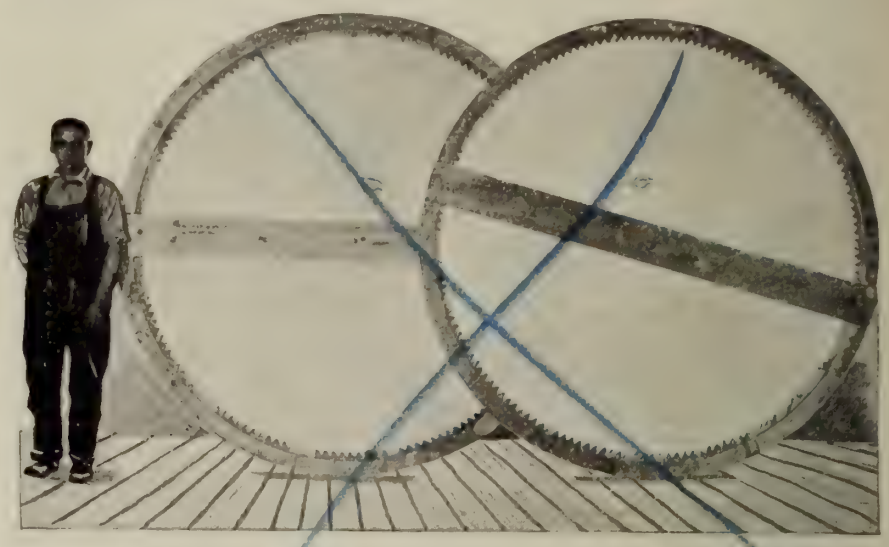
An Up-to-Date B.C. Shingle Mill

One of the most modern and up-to-date shingle mills ever erected in British Columbia is now in process of construction at Ruskin, about 40 miles east of Vancouver. The Stoltz Manufacturing Co. is the name of the company putting up this modern plant. This company is comprised of Mr. James Sobey and Mr. Stoltz. Mr. Sobey is a practical shingle manufacturer and the new mill is being equipped with the very latest machinery for manufacturing high grade shingles.

In place of the old method of using drag saws for cutting up logs, this mill will run two 84-inch Simonds cut-off saws which are the largest cut-off saws ever used in this section of the country for making shingles.

Eight of the latest improved Schaake upright shingle machines are being installed, and Hanchett Automatic Sharpeners for automatically sharpening the large cut-off saws and the shingle saws are also being installed.

The company are sparing no expense in their efforts to make this the most modern shingle mill ever built in this territory.



84" Simonds Cut-off Saws installed in a B.C. Shingle Mill

The accompanying illustration shows two large 84-inch Simonds saws which are being furnished to this mill. It is probable that other mills will find it necessary to put in a similar equipment.

Protecting Forest Wealth of B. C.

Approximately $177,000 has been expended by the British Columbia government this year upon forest protection and the number of men permanently employed has been greater, while the number of fires has been smaller than usual. Mr. H. R. McMillan of Victoria, chief forester, has returned from Greenwood, where he inspected the work of the engineers surveying the tracts of land owned jointly by the province and F. Augustus Heinze. Loss from fire, on account of the newly organized system of forest protection and the wet summer, was very small compared with that in previous years.

"This annual loss we hope to reduce still further because it is on the timber wealth that much of the prosperity of British Columbia depends," said Mr. McMillan in an interview. "Danger of huge losses from fire to our forests is always great unless for the protection of the timber. In the Crow's Nest, for instance, one big blaze might sweep through the valley if it were not promptly controlled and the same thing applies to other parts of British Columbia."

Mr. McMillan while in the Boundary district, made a trip up the west fork of the Kettle river to the end of construction of the Kettle Valley railway at Carmi. He was greatly impressed by the agricultural possibilities of the district. The orchards, although young, showed a most promising growth, while the grain crop this year was so good that 35 bushels of wheat and 90 bushels of oats were grown to the acre, he said.

Word received in Montreal from the New York agents of the Wayagamack Pulp and Paper Company states that they can dispose of all the Kraft paper the company can deliver. The paper, it is added has made an immediate success on the New York market owing to its quality and high tensile strength. At present the mills at Three Rivers, P.Q., are turning out 50 tons of kraft paper per day.

The forestry students of Laval University recently held their third annual banquet at Victoria Hall, Quebec. Among those present were Sir Lomer Gouin, Premier; Hon. J. Allard, Minister of Lands and Forests; Dr. Dechene, Mr. P. E. Piche, Mr. P. Blouin and Prof. Marcil.

CAMP DEPARTMENT

Sanitation in the Logging Camp

It is most gratifying to notice the increased interest that the subject of sanitation is receiving and has received of late, especially as adapted to communities which must work out their own rules of healthful living. In most villages, towns and cities there are established boards of health which either give their time or are compensated for it and whose duties are to make regulations and see to the enforcement of them, to the end that these communities shall be protected against the ravages of distase or to take means to control it should it once gain a foothold. Of these health officials much is expected and demanded, for they are men who have been scientifically trained along the line of prevention and control of disease. But when we come to handling the camp situation we find a different set of conditions. One would hardly expect to go in the woods in a logging camp and find laboratories fitted up and equipped for work which comes under the head of medical science; nor would it be practical to establish such an institution, for the rules of sanitation have been well worked out, and if it is the desire of those in control to supply them the only thing necessary to do is to point out the way in which they may be applied economically and efficiently.

This subject deals with the laws of health and the rules for hygienic living and is worthy of the deepest consideration from both an economic and humanitarian standpoint; and efficient action upon the principles involved means much to both employer and employee in health and comfort.

It is now known that many of the diseases ordinarily encountered, and especially those which might be a source of danger to a community living as people must in camps, are produced by minute organisms of miscroscopic dimensions which are capable of being transferred from one person to another and producing the same condition in the one to whom they are transferred as in the one from whom they came. These small organisms multiply with remarkable rapidity and in a vary short time a large number of persons may become infected from the one source. And so it is that these organisms become potent factors in the life and health of communities, be they large or small.

Knowing then that we are in constant danger of being invaded by these bacteria through the medium of air, water supply, personal contact, and by insects of different kinds, the essential thing to know is the most effective way to prevent this threatened invasion either of our people or our communities. To this end much attention has been paid by investigators and carefully made rules laid down, with the result that sickness has decreased materially in places where large bodies of men are quartered, especially in the army; and when disease in epidemic form threatens it is controlled rapidly and effectively. As applied to camps these rules differ but little from those as applied to villages, towns or cities. There are certain fundamental principles involved that apply the world over, and if carefully observed and strictly enforced make for healthy communities.

Be careful of your selection of the camp site. It should not be located on a spot that has been recently used for the same purpose. The site should also be frequently changed in order to avoid the effects of soil pollution which might result from long continued occupation. The site should be selected with reference to several important particulars. The soil of the locality should be dry, sandy in character, and well drained. The site should also be so located as to afford a plentiful supply of pure and wholesome water. Too much stress can not be laid on this point. Low-lying, damp, or marshy localities should be avoided for obvious reasons.

The camp should be as compact as will be permissible with health and cleanliness. When tents are used, a trench at least 2½ inches in depth should be dug around each tent to exclude surface water; and this should lead, with the trenches from other tents, into a larger one so as to conduct the rain water from the camp ground. The camp should be laid out in streets and these should be cleaned regularly every day and all rubbish burned as promptly as possible. All kitchen refuse should be collected twice a day and removed from the camp grounds or buried in trenches dug for the purpose. The tents or houses should be aired every day, and all bedding should likewise be exposed to the air every day unless the weather prevents.

Water Supply

There should be an abundant supply of pure water for all purposes for which it is needed. When the wholesomeness of the water is doubtful some means of purification should be provided. For this the Forbes portable water sterilizer is now much used. This apparatus is in common use in army camps in the tropics, and good reports are made in regard to its efficiency in preventing the development of typhoid fever and diarrheal diseases. Provision should be made for ample opportunities for bathing. In the absence of bodies of water large enough for swimming shower baths at least should be supplied. Keeping the body clean is one of the greatest factors in the prevention of disease and the preservation of health.

The latrines should be situated at least from 400 to 600 feet to the leeward of the camp and not near the source of the water supply. A deep and narrow trench should be dug for the purpose. It must not be too wide or it will require more earth to cover the excreta. At least three times a day the excreta should be covered to a depth of from 6 to 9 inches with earth or slacked lime. The dry earth readily absorbs the putrifying material and thus renders it inoffensive. This will also protect it from flies and insects, and limit one source of general infection should there be unrecognized cases of typhoid fever in the camp. The excreta of all cases of typhoid fever and dysentery should be disinfected at once, and should never be thrown into the trenches without this precaution. The excreta in the trench may also be burned daily by pouring kerosene upon them and igniting it. New trenches should be dug when the old ones are filled to within 18 inches of the top, the old ones being completely filled with earth. The latrine should not be near the kitchen or mess-room, nor near the sleeping quarters.

Besides healthful sites, the essential conditions of sleeping quarters are dryness, warmth, light, amount of floor space and air supply. Each man should have at least 100 cubic feet of air space and 12 square feet of floor space. There should be more space allowed if the quarters are constantly occupied. This, of course, refers to quarters where many are living together, as in bunk houses.

Ventilation

In frame quarters ridge ventilation is entirely satisfactory, or it may be accomplished by means of double inlet and outlet tubes in the roof, so constructed that the fresh air enters through the outer tube and the vitiated air takes its exit through the inner tube. When an epidemic of tonsilitis occurs in camp, deficient ventilation may be suspected, and the accumulation of infective dust along with vitiated air is frequently the cause of tuberculosis and pneumonia.

Since flies and mosquitoes are frequent carriers of disease, they should be rigidly excluded from the quarters. They light upon all kinds of filth, and in this manner their bodies become infected and they no doubt carry the bacteria from place to place and contaminate whatever they light upon. During the summer months, therefore, all the doors and windows should be provided with screens or mosquito bars to exclude them.

This briefly covers the conditions necessary to obtain the proper sanitary conditions of a camp. They are not difficult to conform to and neither is the matter of expense of any moment. The camp can just as well and as economically be laid out along the right lines in the first place, and great benefit will result to all concerned in more and better work, better health and a better frame of mind if the simple rules of hygienic living are understood and applied.—W. R. H. in the American Lumberman.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

1258. **Wood-working machinery.**—A South African firm of import and export merchants wishes to communicate with Canadian manufacturers and exporters of wood-working machinery. Quotations should be English currency both f.o.b. seaboard and c.i.f. Durban.

1265. **Woodpulp waste.**—A London firm are anxious to secure supplies of a waste product of the woodpulp industry, and would like to be placed in communication with manufacturers in Canada.

1270. **Pine.**—A firm of match manufacturers in the Netherlands requires supplies of Canadian pine, and would like to receive correspondence for shippers in the Dominion.

Considerable interest is being taken by British Columbia lumbermen in the forest protection congress which is to meet in Seattle on December 2nd and 3rd. The subjects to be discussed will include such important topics as "How to use the forest laws we have, and what changes are needed," "Co-operation between the railways and the lumbermen," "The possibilities of wireless in fire work," etc. A large attendance from British Columbia is expected at the congress, and it is hoped to make it an international organization and meet next year in British Columbia.

Utilizing the Wastes—the Tr

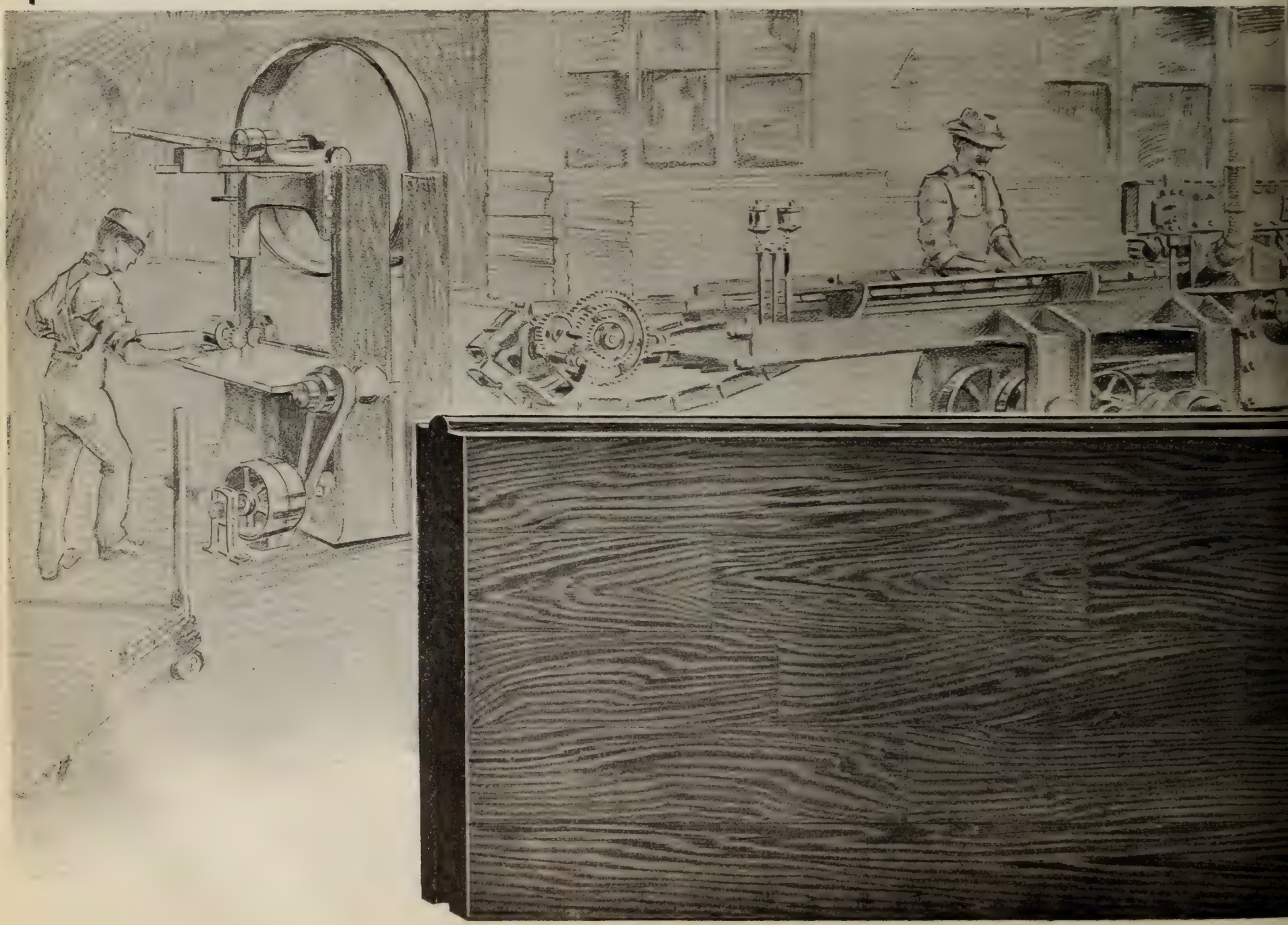
The practice for years of seeing the loss in the by-products does not of necessity mean that they cannot now by modern practice be converted into real profits.

The illustration below shows the possibility of converting short lengths of flooring into a composite board which will enable a manufacturer of flooring to obtain a greater price for this material than it is possible to obtain in any other manner, the same scheme can be followed out whether the material be rough lumber, ceiling, siding, or other products.

By the use of a Linderman Dovetailer in practically any mill it is possible to convert or eliminate from 5 to 15 per cent. of the present waste so that the manufactured product will return a fair profit over and above the original cost of the lumber and the cost of manufacture. As each manufacturing plant has its own problems and as but seldom are the conditions in any two plants alike, it is impossible to give information in an advertisement that will apply to each individual case, but the following list gives a few uses where the Linderman Machine can be used with considerable profit,—

In the manufacture of Doors, particularly the cheaper grades of solid doors, it is becoming a very serious problem how and where to obtain the clear stock for the stiles, rails, and panels, the more progressive manufacturers are joining up two 3-in. strips for the 5-in. stiles and rails, having an invisible joint discernible only by the color or grain of the wood, and in like manner using wider width stock for the panels and bottom rails, using also the cuttings from sash and door departments, whether they be 2-in. 3-in. or longer pieces, converting them into core stock for veneer doors, thereby utilizing what would otherwise be waste material.

CANADIAN LINDERMAN COMPAN



e Economy in Manufacture

In a like manner casing, base, stair treads, wide molding stock, shelving and other required wide stock are built up, giving a product which is as strong or stronger than the natural wide material and effecting a very large saving in the original cost of the material over and above the cost of joining it, which in most instances will average from 50 cents to $1.00 per thousand board feet.

Cuttings from the Matchers 8-in. 10-in., 12-in. or longer lengths, whether flooring or ceiling, can be joined up into wide widths and through the Eastern Provinces find a ready sale among the various box plants and should bring at least $12.00 per thousand at the mill, where now they are bringing but $2.00 for 600 board feet as kindling, in a like manner can the cuttings of planks and deals be resawed and worked into box material.

2-in. x 4-in. can be converted into 4-in. x 4-in., 4-in. x 8-in., 4-in., x 10-in., 4-in. x 12-in., etc., producing a plank having greater strength than though it were wide stock.

In fact any kind of lumber, of any width 1½-in. and wider, of any length up to 16 ft. can be worked up into wider widths on the proper size Linderman Dovetailer, bringing a greater price than can be obtained for the narrow widths, plus the cost of manufacture and making it possible to obtain a ready sale for what at the time being may be slow moving stock.

Are you interested in reducing your waste to a minimum, in obtaining a greater price for your product? If so, we will gladly call, investigate closely your conditions and give suggestions as to where we could be of benefit.

LIMITED, **WORKS AT:** **Woodstock, Ont., Muskegon, Mich.**

The Retail Dealer and His Problems

How I Won Success in the Retail Lumber Business

The records of the mercantile agencies do not prove that there are fewer failures in the retail business than in other lines of trade, but the fact that most retail lumbermen begin business after they have served an apprenticeship in the school of experience, and have learned the business thoroughly under some older head, seems to point to greater chances for success than are possessed by the business man who jumps in with little besides nerve and a few thousand dollars between him and failure.

Such was the case of the dealer about whom this little sketch is written. If Dr. Osler had applied his theories about the period of usefulness of men in the retail lumber business, it is certain that he would have had to place his age limit nearer 70 than 40. The successful retailer of 40 is, of course, in most cases, just rounding into full possession of the varied assets of experience and business connections which insure increased trade, and it is a safe estimate that most of the time preceding was spent in finding out the whys and wherefores of the business in the service of some veteran establishment. But the druggist of 40, or the shoe dealer of 45, or any average retailer at this stage of the game, often begins to think of approaching half century mark with the realization that the scion of his line, aged 22 or 23, must soon assume the major responsibility of active business. The average retail lumber dealer, on the other hand, invariably feels that he is just secure in knowledge of the game from A to Izzard when he has reeled off a couple of score years.

Mark Lane, with whom this story deals, is no exception to the rule. Mr. Lane is now the owner of a successful lumber yard in a city which is the metropolis of its state. He is a business producer and a business getter, an advertiser as well as an authority on frame construction and the sale of lumber of all sorts. Young Mark Lane, tanned and sinewy and alert to every new development in the trade of 20 years ago, just as the stalwart figure of Mark is to-day, was in the employ of a pioneer lumber concern whose yards were located only a few squares from the present headquarters of Lane & Co. Incidentally, a few of the old yardmen and some of the equipment of the earlier company are now in the employ of the aggressive concern of to-day, for the old company went out of business late in the '90's.

A Valuable Asset

"I've been in business only ten years and I don't care who knows it," says Mark. He is confident that the backing of a decade of aggressive effort, which shows a healthy percentage of increase for each year, is as effective in modern business and in working up new orders as the reputation of the oldest inhabitant of the local trade, who has been working with fairly profitable but with varying success for 30 or 40 years at the same old stand. Ten years of actual business experience, perceded by ten years of comprehensive apprenticeship in the trade, serve as a valuable asset for Lane, just as they do for many another of the strictly up-to-date, younger generation of retail lumber dealers.

"Say, young man," Mark says to inquirers with that humorous gleam which is so barely discernible that it is sometimes taken for a glint of unwonted fierceness, "Do you know why the man who is 27 or 28 or 30 years old never imperils his career unnecessarily if he works into the lumber business with a little experience? It's because he doesn't have a chance to subject his credit to all kinds of ridiculous strains. He has to have the substance before he can put up a front. You'll find the down-town district thick with ambitious young merchants who have started out too early for comfort.

"Every time I walk through the avenue I see half a dozen shops which I feel sure are going to the demnition bow-wows. There's a haberdasher's here and a shoe store there and a ready-to-wear shop farther on, with a drug store on the corner. All of them have been started within the past year by young fellows who had a couple of years' experience in their respective lines, a couple of thousand dollars capital and unlimited enthusiasm. But the latter asset doesn't always settle bills. These establishments are overstocked from cellar to roof. Probably many of the novelty goods they carry were placed with them on consignment, and lots more of them are carried on terms of 60, 90 or 120 days on the books of the manufacturers. You find the opportunity for this sort of thing reduced to a minimum in the retail lumber trade. That's why I say that its hazards are reduced for the progressive business man."

Mark Lane ran into some valuable experience in this line. He had just passed his 29th birthday and was in the employ of the old Saunders-Rawlins Lumber Co. when the crisis came and he went into business for himself. For eight years previous he had worked for Harvey Saunders and Frank Rawlins, whose partnership was a matter of thirty years' foundation.

Getting a Start

Young Lane, out of high school, through two years at his State university and having completed a six months' course at a business college when he was compelled to leave the State institution, started out as a shipping clerk at $50 a month and worked his way through the lumber inspection, sales and office departments of the concern to the position of secretary at $150 a month in eight years. He had supported his mother during that time, and the two of them had accumulated nearly $6,000 by scrupulous economy and a couple of fortunate investments. This was his capital when he turned 29 and when old Mr. Saunders died, leaving the concern in charge of the weaker member of the firm.

"It took me just about two months to see that the Saunders-Rawlins Lumber Co. was on the toboggan, after Saunders' death. I pulled out just as soon as I had learned from Mr. Rawlins that he was going to wind up the property and retire in green old age," is Mr. Lane's own version of his start. "I reckon it was about 24 hours after I reached this decision that I was dickering with Brewster & Green, the real estate agents, for a lease of this property. You see, the Central Southern was pushing its yards over this way, although we never thought of a private switch back at the old yards half a mile away from here, I figured that it wouldn't be long before I could induce the railroad to run in a spur for me. I was right, for inside of a year we had cars here on our own hub."

Mark leased the yard at $100 a month for two years. The real estate men thought they saw an opportunity to divide the tract into building lots or factory sites in a couple of years, and they were glad to secure a good tenant for a short term. Subsequently, the Lane rentals have increased, but the business has grown accordingly and the location is so good that the lessee is willing to stand for what might be considered a stiff price.

That the original Mark Lane lumber yard was a small one, so far as stock is concerned, is to be accepted as a matter of course. In describing its impressive appearance, Mr. Lane tells that there were nights when he lay awake fearing that his supplies would be entirely vanished the next morning, because of the repacious desire on the part of the neighboring railroaders and residents of the poorer quarter for kindling wood and chicken coop materials.

"I remember one night," he relates, "I had read of thieves down in the state depleting a general store with a couple of wagons. A couple of wagons! I trembled as I thought what a couple of teams could do to my little stock of choice flooring, or what might happen to me if a drayload of that car of quartered oak disappeared. So I dressed and trotted half a mile down to the yard, just to be sure that its stock lay there undisturbed in the moonlight. Since then I've employed a night watchman."

An Established Success

In the years that have passed, making Lane's lumber yard one of the leaders in its field, it has become axiomatic in that community that you can get anything from an inch strip of white pine to a drayload of oak joists there. Just as wide an assortment as his assets would allow, with special care bestowed in certain lines commanding a wide market locally, have made Mr. Lane's trade notably successful. You never can tell what an order from the consumer will amount to nor what direction it will take, he avers, and there is substantial profit to be figured upon lath just as upon inch boards. It is a variety of sales, as well as quick ones, that does the business. At present it is probable that the Lane yards compare favorably in assortment and grades of lumber with any establishment of their class in the country.

Just to look at the snowy shirtfront, the neatly pressed suit and the spotless shoes of the head of the house of Lane suggests to the observer that cleanliness runs godliness a close race in scoring for the modern business man. The lumber dealer says that cleanliness in his yards has done just as much for him in his business.

The Lane lumber yards are kept thoroughly departmentized, of course. Practically all of the stock is under shed, and as much of it as possible is kept in compartments formed of light scantlings nailed together. Thus it is elevated from the moisture of the earth and is easy to load, unload, check up and keep dusted. In one bin there may be flooring, in another plain oak boards, in another cedar strips, in another weather boarding, and so on. The effect is of a neatly

arranged library of lumber, from which the yard owner may cull his deliveries with a minimum of time and trouble and the least possible waste or yard depreciation.

Now comes a combination of circumstances which has resulted in a final and lasting success for the Lane yards, according to the autobiographical story of their owner:

"I had been in business for myself a little over a year when I was married," said Mark, losing his brusque air and lapsing to the personality of the easy-going, prosperous family man. "Yessiree—the only thing I ever did in my life about which I have never entertained a doubt. Ever meet my wife? Well, let me tell you what that youngster of mine said this morning: 'Well, it's a big building year and I've passed for the third grade at school; you'll buy that auto, won't you, pop?" He was cute enough to see that his marks in school meant as much to me as the records of the building inspector's office."

"Coming back to the point, I might say that business widened out tremendously after I was married. Guess it was because I stuck closer to my prospects than I did when I was thinking about the times the boys would have at the association convention. I opened a builders' hardware department in connection with the yard, and it has been one of the best paying ventures I ever struck. Practically every lumber order has been augmented through the sale of suitable hardware, all the way from nails and spikes to the handsome door locks and fixtures home builders are demanding nowadays.

"I don't believe in diversifying your interests too greatly. There is enough money in the retail lumber business to justify a man in sticking to it closely, but you cannot lose anything and you stand to gain a great deal in not overlooking a good bet like builders' hardware. It is the logical line for the lumber retailer to handle, for whenever a man buys lumber he wants nails, and the chances are that you can sell them more readily than anyone else when he is on your ground."

Mark maintains a good stock of builders' hardware, therefore. Investigation into the policy of management for this department shows that he profits in turning his money over quickly. Although the list price upon locks, or the market quotation on nails, may vary but little in the course of a year, he does not sink too much capital in single purchases and consequently realizes profit upon every transaction.

The story of Mark Lane has ended, for present intents and purposes, but in realty it is just beginning. In the prime of life, he is in the possession of an established business run along progressive lines. The dust brush and hardware department testify to the latter feature. Ten years ago he was just beginning, with scant assets save a thorough knowledge of his line and such acquaintance among builders and contractors as he may have acquired through employment with the old lumber company. In the lumber trade everywhere there are similar instances of men who have made haste slowly and achieved success by building upon a substantial foundation.—Lumber World Review.

A Fastidious Yard Owner

Order being nature's first law, it is commendable in all walks of life, and particularly in those where there are many things to keep in order. A lumber yard? Yes, that is one of them. A good size retail lumber yard presents as many opportunities for the exercise of a sense of order, almost as a library or a 10-cent store. Where there are two or three hustlers to look after, a yard man has plenty to do on his hands to keep things picked up and laid straight, especially when business is brisk and there is a large variety of stocks in the sheds. One of the most finnicky men ever heard of, about order in his yard, was a dealer in an eastern city who handled about everything that ever entered into the make-up of a lumber yard, and a number of things besides. He employed five or six men—selected for their abnormally large bumps of order—who were constantly on dress parade, and it was "Careful, Jeremiah, watch your sticks; keep them straight. There, James, brush off the sawdust from that board. You are very careless to load lumber in that condition," and so on. He was as careful of his boards as he was of his clothes, and they were always "spick and span." As the aforementioned Jeremiah once remarked, "It's a great pain in me face I have from blowin' the dust off av th' lumber. Next thing we know that jood boss av ours will be after makin' us use feather dusters on it, bad scran to him!"

The office of this man's yard was as neat and tidy as a lady's boudoir, and it was with fear and trembling that any one of the yard hands approached its outer portal. Once a careless or forgetful employee expectorated tobacco juice on the walk just outside the office door, and the lecture that he was compelled to listen to gave him such a jolt that he bolted his "cud" and, like Bill Nye's dog "Entomology," went outside and regretted it. This dealer stood high in the community, however, and was widely known for his clean business dealings as well as for his clean stocks. He was as careful of his business reputation as he was of the appearance of his office and sheds, and although his men called him finnicky, they freely accorded him the respect to which he was entitled.

Getting in the Money

There is a universal feeling among all merchants against saying or doing anything that will jeopardize their trade with a customer. In fact they will allow themselves to be so strongly influenced by this sentiment as to permit their customers to take privileges that are inimical to their own interests. I suppose this is natural and comes from a desire to conciliate and retain the preference of their trade for them. This can be carried too far, however, for when a business man releases any of his own rights he is doing an injustice to his business. I have known of lumber dealers who had the reputation of being "easy" with their trade and the consequence was they were always hard up and complaining of collections. They knew what they ought to do but lacked the will power and nerve to carry it iuto action. And I believe that I am not far from the truth when I say this disposition on the part of dealers to be lax in asserting their rights and maintaining them is the greatest evil in the retail lumber business. We meet and talk among ourselves about our troubles and project different ways to lessen them but we are too apt to overlook the fact that we ourselves are chiefly to blame for most of them and our own inner consciousness condemns us as the party at fault. It is a weakness common to all. Some 'tis true, have it more than others but when we see a man who is strong in having his own way in what he should have we admire him for it and wish we had the same backbone as he has, in standing for our rights.

Lumber dealers have often wondered why it is that farmers are so ready and particular to meet their obligations at the bank when due and let them wait till they got ready to pay their accounts which represent cash as much as the money does which the bank passes over the counter to them as a loan. It strikes them as curious also that the most financially strong among them will never think of demurring against giving their note to the bank for a loan and are gratified and pleased if it is taken without additional security other than their own name. But these same men would consider it almost an insult if a dealer should ask them for the same as at the bank and even the class of men of whom the bank require other security than their own on a note would feel the same way over such a suggestion from the dealer. The difference is the banks all require it and there is a coherence of action among them to live up to the rule and enforce its stipulations if necessary. But with comparatively few exceptions there is nothing of the kind with the lumberman and with the majority of them they have a timidity of feeling about even dunning their "good" customers who are delinquent in paying their long past due accounts.

Outgrowth of a False Attitude

One reason for this is the false attitude which both dealer and customer holds towards each other in the transaction of purchase and sale. The farmer thinks and assumes he is bestowing a benefit when he gives his patronage to the dealer and quite often he has a patronizing way when he does it. On the other hand when he goes to the bank he is pleased if the cashier thinks he is good enough to grant him a loan and is glad enough to consent to any requirement that is asked. The shoe of obligation is on the other foot in this case you see. The lumber dealer, however, treats the farmer differently. He runs after him and seeks his trade and lets him know that he wants it. Although his lumber is practically as much a necessity to the farmer as the bank's money is, his actions have a tendency to lead the farmer to think that it isn't. So there has grown up a sentiment that lumber at the yard and money in the bank are two different things altogether and hence this difference in the attitude of the farmers in general towards them. The bank dictates absolutely to the farmer what he shall do in the matter of accommodation and the farmer practically dictates to the lumberman his own terms when he makes a purchase on credit and not infrequently he dictates the prices as well as in the case of buying a bill that has gone the rounds of competitive effort.

How many accounts have you, my friend, got on your ledger today that you feel a sort of hesitancy about pressing for immediate payment?

Every auditor of a line yard concern can tell of instances where the manager of a yard has told him of some names on the ledger of men who were perfectly "good" but it wouldn't do to press them too hard for a settlement because they would be liable to get offended and go elsewhere with their trade. The manager has an on-the-ground feeling and therefore is more sensitive about offending those of his personal friends among the best customers of the yard. I know what this personal feeling is and yet at the same time I have often felt my own lack of stamina in pushing for collection when my business judgment told me was the thing I ought to do. The great

strife among competitors for trade tends to taking the stiffening from their backbone in enforcing such business terms as are common with the bank and even such terms as they theoretically may have of their own. So it has come about that dealers in general are in a way forced to do what others do because of being enmeshed in the bonds of a custom of their own making. There has been a great improvement, however, in this respect during later years as the younger generation have taken their place in the business. Some of the old dealers, too, have changed their methods in the business dealings and relations with customers. I know personally of a number who are as strict with their credits as the banks are and who have succeeded in educating their trade up to their way of doing. As may naturally be supposed such a change required long and persistent effort.

Difficult To Go It Alone

It is extremely difficult for one dealer in a town to carry out a system of strict business methods when his competitors persist in continuing on in the old way of catering to the prejudices of the farmer customer. However this may be, it is possible because any dealer who has any business sense at all favors the idea of better methods in dealing with credits and only his lack of confidence in himself and competitors keeps him from taking a step towards it. Therefore I say it is possible and if one dealer inaugurates a departure from the old system and persistently follows it out regardless of what his neighbors may do, the almost inevitable result will be that they, seeing he is determined in his course, will begin to have confidence in his sticking to it and think more favorably of trying it out themselves. The fact that the first one to make the start has made it easier for them to follow and when they all get into it the farmers will recognize that it is a fixed thing and they will accept it in time just as they have with the banks.

Now I don't want to be understood as meaning to do away with the credit system as that is a different matter entirely. What I want to press home to you is the possibility of governing your credits instead of wearing their collar and have them dictate to you for you know as well as I do that under the present system you are not your own "boss." Just think this over and see if I'm not right. Calling attention to a wrong thing is easy enough and therefore to be of benefit to you, I always try to suggest a remedy that I believe is practical and likewise practicable.

It is approaching the time of year when there is a considerable amount due on bills that were sold in the early part of the fall and however disagreeable the task may be you have got to look sharp after more or less of them or some will be dragging over till next year. It is not a pleasant job to punch up a man who already has paid you a good lot of money but if he has exceeded the time when the last payment should have been made according to the stipulations made at the time of selling the bill steps should be taken for a settlement as soon as possible no matter whether he is "good" for it or not and if the party is a contractor the necessity is more urgent if anything than with the direct owner. In the latter case it is unwise to say the least to let a matter like this slide along without action simply for the reason of not wanting to offend the contractor. You have no means of knowing just how he is coming out financially on his fall contracts. The chances are that he may have lost or only come out even on some of them and from the rest his profits are not likely to be very large. And if you don't watch pretty closely you may have to carry him for more or less till he gets work next spring. His being a good fellow and honest in his intentions to pay won't alter the injustice of your having to carry him.

Diffcult to Dun a Friend

Speaking for myself I confess it was the most difficult thing in my experience to separate friendship from business considerations. I have made more mistakes I think from this one cause than any other. I have often wished that I was so cold blooded in business matters as some whom I know that would unhesitatingly sever the ties of a friendship in adhering to a strict construction of business principles. After one has run a yard in a country town for a number of years he can't help but for a good many personal attachments among his customers and he knows too that the large majority of those who trade with him do so because of their personal liking for him. He knows very well they could buy their lumber as cheaply and of the same good quality anywhere else but he holds their trade because they like him and his ways. So when some of these good friends get a little careless or have some setback in their affairs so as to place them in the list of delinquents on his books he is naturally reluctant about taking measures calculated to force them for payment. I think it is a fact we all are cognizant of that we unconsciously presume on our friends notwithstanding the fact also that we know it is unfair for us to do so.

Country yard retailers may be said to be educators in a business school with every customer for a pupil, for there is scarcely a day goes by that a dealer don't have to instruct some customer in the mysteries of business as it is a thing they don't understand. Many a time have I had a farmer say to me that as I had the lumber on hand it might as well be out on his farm as there in the yard where it was lying useless and he was honest in thinking so because he felt sure of paying for it as soon as he could. They don't see either why it is that if they pay the dealer a profit on what they buy from him on time they should pay interest on the account, for to their understanding he has already received interest on his money in the form of the profit charged them. They can understand why the bank should charge them interest on money borrowed, but they don't see why they should pay the lumberman what they consider is double interest. These and many other things which are repeatedly coming up of like character for the dealer to argue and explain to his customers constitute the educational part of the direct personal nature of it. Each individual has to be treated according to his temperament and degree of intelligence and also with tact and patience to deal with the natural prejudice, selfishness and suspicion which this class of trade entertain towards the seller of goods in a country community.

Talk to Them in Print

If people understood more about business and the correct principles which should govern it there would be less difficulty in the lumberman's doing business as he knows it ought to be done. And hence the reason for my so often suggesting the medium of the local paper for use by the lumber dealers in talking to the public and saying to the people collectively what they do to them individually as customers when they come to the yard. In this way the public could be made to understand that the giving of credit is not done as a personal favor to the individual, but solely as a business proposition for the dealer, and if both dealer and the public would come to understand and recognize that, there would be less of hard feeling toward the dealer who was strict in insisting and enforcing his terms.

The public is learning more of this sort of instruction by means of its business dealings with the mail order houses. No doubt, many a farmer has thought it was unnecessarily strict in them to exact the cash in advance for an order he was sending in when he was "as good as the wheat" for anything he might order. Some have sent their personal cheque in with the order and had them returned because exchange was not included and the order was held back till the proper remittance was made.

Some farmers have what seem to a business man, queer notions about such things. I knew one who got the office of postmaster under the first Cleveland administration. He was well fixed financially and a typical western pioneer with the careless ways of that class. He called me into a back room of his office one day and told me of the way the post office officials at Washington were "pestering" him because his accounts with them were a few cents out of balance. He had sent in the difference in money to the department, but this was not sufficient. The "d—d fools," as he called them, insisted on his looking up the error and making a clear report. I explained to him the reasons for their wanting it and went over his accounts with him and found the error for him. He got some new ideas while he held the office that he never dreamed of before, and so does every farmer when he leaves the farm and goes to town and enters an unknown world of business complexities and trouble. 'Tis true, farming is of itself a business proposition, but in his business transactions the farmer looks mainly after the two essentials, buying and selling. He sells for cash and buys on time and in a great measure pays when it suits his convenience. So in this respect the farmer is after all a pretty good business man in looking after his own interests and might be imitated by many merchants who deal with him.

The Filing of Mechanic's Liens

Doubtless many of you at this time of the year are confronted with what is to some an unpleasant proposition, the filing of a mechanic's lien. I term it unpleasant although it ought not to be, because it is purely a business proposition for those who are willing to take advantage of the justified protection that is at the hand of every lumberman. And if he sees fit to take the risk involved of letting the time for filing it go by it is his own fault if he loses the amount of the account. I agree that it is unpleasant, for many times it involves also the breaking of the hitherto friendly relations between the dealer and his customer. No one likes to do that, especially in these days, when territory is limited and new customers are few and far between and more difficult to hold when you have them. It was sometime before I had nerve enough to file a lien. I hated like the dickens to be forced to it but after I had filed one or two I got over feeling so nervous about it.

The conditions of filing a lien in those earlier days, however, were different from what they are now. All I had to do then was to make out the list of items, attach it to a properly filled out blank, swear to it before a notary and send it in to the county clerk for filing and recording. All this could be done without letting the owner know that it was done. The debt was secured, however, and if it was paid

before the two years expired wherein we could foreclose it if we wanted to, the owner never would know it until the occasion rose when his title had to be examined in the case of his making a loan on the property. But all this way of doing has undergone a change since then. In every state now the law provides that the owner shall be notified before the act of filing takes place and there is no way to prevent hurting his feelings in keeping it from him. I presume this is a more just way than the old, but it is more unpleasant for the lumber dealer. He not only ruffles the owner, but he is liable to get "at outs" with the contractor as well, for such action on his part means to them that he is afraid they would pay the account.

The Fault of the Contractor

Many of the liens filed nowadays are chiefly owing to the contractor's inability to properly estimate the cost of the job. The owner having contracted with him for the whole job complete, very naturally supposes he knows his business well enough not to take it at a price that will not pay his bills and hence he resents the attempt of the dealer to have him stand good for the balance due on the bill of material.

There is only one way to do in every case when the dealer sells a bill direct to the contractor for the erection of another man's building, and that is to have a definite understanding with both owner and contractor that should the latter fail to have his estimate high enough to complete the job he will look to the owner for payment of whatever is due. Better still is the securing of an order from the contractor on the owner to pay for all the material that he furnishes for the job and if the owner is good for the amount, there will be no necessity for the filing of a lien. I think it would be a good plan to publish the main essentials of the lien law in the local paper and explain them so every one reading it may understand clearly what they mean. This would aid materially in letting people know some things about building they are ignorant of, and preventing the misunderstandings that are liable to arise in the selling of bills to contractors. As a rule there are few foreclosures of liens in proportion to what are filed. But when you are in doubt about filing a lien make one out and file it.—C. H. Ketridge in the Mississippi Valley Lumberman.

My Policy if I were a Sales Manager

By P. A. Gordon

A good writer could write a book of several volumes on the above named subject, but as I have some very definite ideas on the subject, I am going to try in as few words as possible to tell you what I would do were I suddenly elevated to such a position.

The first thing I would do would be to cut out a whole lot of the useless red tape that the present day sales managers use. I believe that better results can be obtained by giving the salesman the necessary information regarding stocks and prices and conditions at the mills in as few words as possible, as the average salesman in these days of close competition has neither the time nor the inclination to read several pages of "whereases and hences" and such stuff, which may be very edifying from a literary standpoint but of no practical use when you are trying to convince some well-informed retailer that he needs your stock, even though it costs a trifle more than some other fellow is offering his.

I would hire the highest-priced salesmen I could find, for I firmly believe that the best is the cheapest. I would endeavor to get salesmen who have the confidence and respect of the trade in their territory, even though I had to pay them a little more than I could hire peddlers for. In over twenty-five years on the road selling lumber I have not found a railroad that will haul a cheap man for less than it will haul a good man; nor have I found a hotel that will house a cheap man for less than it will a good one. Of course, I know that there are cheap hotels, but I would not keep a man who made a practice of stopping at poorer hotels than I did, for I believe that a house is judged by the man who represents it, and if he is continually to be found at cheap places it is not to be wondered at if the trade rates the house he represents as being also cheap.

I would want my men at the mills often, at least every three months, for I would insist that they be thoroughly posted as to what the manufacturing end of the business was doing, and no amount of letter writing will give them the information that a good man, who has his heart in his work, can gather by spending a few days in the mills and yards; I would insist that they be thoroughly posted as to grades and manufacture, so that I would not have to have an inspector following them most of the time.

I would not ask my men to do things I would be ashamed to do, and would insist on absolute honesty, between ourselves, and between them and their trade.

I would not nag at them, nor find fault if they charged up an occasional laundry bill; I have known sales managers to write a whole page to some salesman telling him that his expense account for the last month was altogether too high, and that they could not allow the ninety cents he had charged for laundry bills, and that Mr. Sellem's expenses were $9.50 less than his, but they forget to state that Sellem sold less stock, or that he sold it cheaper, or else he had to have an inspector following him most of the time, whereas the man who was being "called," while not turning in as many orders sold only to the very best people, at the top of the market, and sold it so well that there was a profit on it to his house, and no possible chance for his trade to find fault, if it were so inclined.

I would consider the man who only sold 20 cars a month, at a profit, more valuable than the one who sold 100 cars at cost or less, and would endeavor to keep the former satisfied, and on my pay roll, and would not wait until he threatened to quit before giving him a raise.

I would devote a whole lot of my time to "getting next" to the man at the head of the manufacturing end of the business, and would endeavor to convince him that we could accomplish more by pulling together, and agreeing that each needed the other, than by any other method.

To sum it all up I would endeavor to get a corps of salesmen on the road who knew their business, and in whom I had implicit confidence, and would then put it up to them to get results, without taking up my time with small matters that a man on the ground, who is in touch with his trade, and has their confidence, can handle to the best advantage, thus leaving me free to watch the small things that are so often unnoticed about the office, and in the mill and yards. After getting this corps together I would treat them in a manner that would insure my having their respect and confidence, and have them all fighting for the firm all the time.

Whenever a customer complained of a shipment, I would not write him that "we have taken this matter up with our shipping department, and the inspector who loaded this car remembers distinctly that it was strictly up to grade in every particular, and therefore you must be wrong, and we would ask that you keep the stock intact until we can send an inspector to go over same." Instead I would refer the matter to the salesman in the territory, and leave the settlement entirely to him, and simply write the customer to that effect. A salesman who is posted as to manufacture and grades, and who has the interests of his employer at heart, is going to get a better settlement every time than can possibly be secured by any other method, and if he is properly treated and supported, he can be depended on to be just to all concerned.

I would not insist on my men pounding their customers fifty-two weeks in the year, nor would I let them travel when we had nothing to offer, except a few cars of 2 x 4—24 No. 2 common or a few odd and out-of-date patterns of mouldings, or a few odds and ends for which there was no sale. There would be just as much sense in a boot and shoe manufacturer sending his men out with a few left-foot boots that he happened to have on hand, and which he would make money on by burning up, and sending his men off on fishing trips.

I would insist that the selling end of the business be given just as much consideration as the manufacturing end, which would be somewhat of a departure from the present method, and I believe the successful operator of the future will admit the necessity for so doing.

I would insist that I was not to be interferred with, but that I was to be supreme, and that I would be held responsible for the failure or given all the credit for the successful marketing of the output of the operation, and would insist on hiring and discharging my men.

I would want all my men at headquarters at the same time, so that we could hold experience meetings, which would surely be beneficial to all.

I know that I could make some large operator more money by employing the above methods than he is making at present.

I know the above will seem too radical by some, but I think that all must admit that the sales end of the lumber business has been given altogether too little attention, unlike other successful businesses, such as steel and iron, etc.

I would want at least to advise what forms of advertising were to be adopted, for I firmly believe that a salesman who represents a firm that is a liberal and judicious advertiser can always get a more liberal hearing than one who represents an unknown concern, and I believe that with the right kind of an organization a live sales manager could find time to attend to the advertising, and if he have any originality at all his acquaintance and personal knowledge of what would appeal to the trade would surely prompt him to keep his stock moving. Of course a man who has travelled and therefore has a personal acquaintance would be better able to do this than would one who was simply sales manager because he was related to the boss.

I would want to visit the trade in company with my different salesmen as often as I could find time to do so, therefore keeping as closely in touch with them as possible, and this would also give me an opportunity of studying my man so that when I had to do so I could write him the kind of letter that would appeal to him.—American Lumberman.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

WANTED—LUMBER, ETC.

Wanted

1,000 cars ordinary Sawmill Sawdust. Will accept now or later. State what you have. Box 639, Canada Lumberman, Toronto, Ont. 22-1-68

Birch Logs Wanted

Wanted about 500 logs, Prime Quebec Birch, 18 inches and up. Quote F.O.B. Box 711, c/o Goulds Advt. Offices, 54 New Oxford Street, London, England. 23-2-82

Wanted

Large quantity of Birch, Maple, Elm, Ash and Basswood, 1 inch and thicker, Log Run Dry or can place orders for spring delivery. Box 636 Canada Lumberman, Toronto, Ont. 21-24-63

Wanted

Five million feet Hemlock and Spruce, 1-in. to 2-in., for delivery next spring or summer. Can use portion now. State what you can supply. Box 640 Canada Lumberman, Toronto, Ont. 21-24-66

Wanted

One million feet 4 x 4 to 8 x 8 Maple, Beech, Birch or Elm Squares. Will accept hearts of knotty stock, for rough work. Delivery now or during 1913. Box 638, Canada Lumberman, Toronto, Ont. 22-1-67

Birch Wanted

We desire to buy 100 M. to half million feet 4/4, 5/4, 6/4, and 8/4 log run No. 2 common and better Unselected Birch. For sufficient quantity will send representative to load stock. Terms cash upon inspection. Apply to Louisville Point Lumber Company, Louisville, Ky. 20-23-43

We use yearly five hundred thousand to one million feet of Birch, Basswood and Ash in our business and are open to contract with responsible mill men for same. We would be willing to advance money on the logs and also on lumber as sawn. Write us, Manufacturer, Box 619, Canada Lumberman, Toronto, Ont. 20-37 T.F.

White Pine Wanted

Venezuelan importer wishes to purchase 200,000 to 250,000 feet of white pine. The lumber is to be 16 x 12 x 12; 50 per cent. to be free from knots on one side. The goods must be f.o.b. any Canadian port on the Atlantic side. Address "Venezuela" c/o Canada Lumberman, 119 Board of Trade Bldg., Montreal, Que. 23-89

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4½ in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

Lumber Wanted

Four, five and six quarter, Spruce, Hemlock and Norway, four, six, eight and ten inches wide, rough, also surfaced. White Pine Mill Culls and Lath. Box 615, Canada Lumberman & Woodworker, Toronto, Ont. 20-1-34

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

FOR SALE—LUMBER, ETC.

For Sale

For quick shipment, 100 M. ft. 2-in. Birch, December, 1911, cut. No. 2 C. & B. at $20 per M. on cars. Farm Point, Que. Hall Bros., 174 Mutual Street, Toronto, Ont. 16t.f.

For Sale

Five thousand pieces small posts, 3-in. to 4½-in. top, peeled and in good shipping condition. The Baker Lumber Company, Lindsay, Ont. 20-23-30

For Sale

140 M. ft. Hemlock, 22 M. ft. Ash, 27 M. ft. Birch, 13 M. ft. 1-in. Maple, 90 M. ft. Spruce, 55 M. ft. Pine. For prompt shipment. The Baker Lumber Co., Lindsay, Ont. 23-91

Yellow Pine Timbers

We have on hand in London, three carloads of Yellow Pine Timbers, 8 x 14 to 12 x 14, 12 x 24 ft. long. Prompt shipment can be made. For further particulars apply to The London Lumber Co., London, Ont. 23-24-86

Timber For Sale

About five hundred thousand feet of standing white pine timber; about three thousand five hundred trees; ten miles west of London, Ont. Price and full particulars, apply to E. Todd, 336 Main street east, Hamilton, Ont. 23-72

For Sale

500,000 ft. Maple squares, 1¼-in., 1½-in., 1¾-in., 2-in., 2¼-in. and 2½-in. Any length from 12-in. up.

Car lots and upwards.

M. Mitchell, P. O. Box 204, Lucknow, Ont. 23-2-79

Lumber For Sale

400,000 ft. 3 x 7 and up Merchantable White Pine.
200,000 ft. 2 in. Merchantable White Pine.
200,000 ft. 1¼ in. Basswood, Log Run.
500,000 ft. Hard Maple, 1 in. to 4 in.
Apply to

GEO. C. GOODFELLOW,
Montreal, Que.

FOR SALE—MACHINERY, ETC.

Two Saw Mills For Sale

Two second-hand portable Saw-Mills, each fitted with cut-off saw and 52-inch inserted tooth saw, also one double edger and one 24 h.p. Stationary Engine and Boiler. Everything in first-class condition and good working order. Reply, Messrs. Thomson & Findley, Terra Nova, Ont. 23-24-59

For Sale

⅝-in. Yellow Poplar saps. One carload 10-in. to 16-in. wide. Also one carload 2-in. panel and No. 1 Poplar 12-in. to 24-in. wide.

CHARLES F. SHIELS & CO.,
21-24-60 Cincinnati, O., U.S.A.

Locomotive To Rent

Twenty-five-ton Locomotive available for rental during winter months at reasonable rate. Apply, John J. Gartshore, 58 West Front Street, Toronto. 23-77

For Sale—A Snap

Ten sets Sleighs. Runners 4-in. x 7-ft., 5 ft. wide. Bunks 8 x 9 x 8 ft. Bench 9 x 10 x 6 ft. $15.00 per set. Box 603, Canada Lumberman, Toronto, Ont. 20-23-27

Keg Making Machine For Sale

Consisting of one bilge drum saw, American make, entirely new; one stave equalizer, also new; one heading turner (this is not new but in good order). Has attachments for turning barrel headings. For further particulars write J. E. Waterous, Brantford, Ont. 23-88

Saw Mill For Sale

Huntsville Lumber Company, Limited, will in the future only run one of their two double cutting Band Mills, which is now cutting fifty thousand feet per day.

They will sell the same with engine, boilers and all other machinery along with building. Also will sell blacksmith's tools and a number of saw-log sleighs and chains.

Huntsville Lumber Company, Ltd.,
22-42 T.F. Huntsville, Ont.

WANTED—MACHINERY, ETC.

Wanted

An up-to-date Planer and Matcher. Must be in first-class condition. Write all particulars to C. A. Spencer, Eastern Townships Bank Building, Montreal. 23-85

WANTED—EMPLOYMENT

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

Experienced office man wishes position as secretary or accountant in lumber company. Has good knowledge of lumber manufacturing, planing mill work, and selling end. Also capable of keeping books, handling correspondence, etc. Good references. Open for immediate position. Box 651, Canada Lumberman & Woodworker, Toronto, Ont. 23-84

WANTED—Position as superintendent or manager. Have had over twenty years' experience from stump to market with large concerns in Canada and the States. I am practical and have been successful operating at low costs. Can furnish best references as to character and ability to produce results. Reply to Box 652, Canada Lumberman, Toronto, Ont. 23-24-87

Situation wanted in Alberta or Saskatchewan with firm having good prospects for promotion, starting as salesman. Have thorough experience from stump to market. Four years manager for firm in Ontario having annual cut of two million feet. First class references. Canadian, age thirty-four; married. Reply to Box 654, Canada Lumberman, Toronto, Ont. 23-93

Position Wanted

Young man, French-Canadian, (21), first-class commercial diploma, French and English Correspondence, fair knowledge of shorthand and typewriting; diploma of Quebec Log Scaler. Three years' experience in the lumber trade (office, mill, logging, store). For the last year manager at a branch mill. Just out of employment on account of employers cutting down business. Open for engagement in the same trade in any place. Address, mentioning wages and position, to M. A. M., P. O. Lagace, Co. Bonaventure, Que. 23-76

WANTED—EMPLOYEES

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

A Band Resaw Filer to take care of a 5-in. Resaw machine. Reply, Edouard Ruel, Lauzon, Levis, Que. 23-92

WANTED—For a well-equipped, up-to-date sawmill, a good setter, trimmer and edger and other men who have had experience in sawmills. Address Dominion Mahogany and Veneer Company, Limited, Montreal West, Que. 23-81

WANTED—Office man to take charge of books at a fair salary, and purchase interest in established wholesale car-load lumber business in Edmonton. Three to five thousand dollars required. Splendid opportunity. Address, Wholesale Lumber, P. O. Box 1353, Edmonton, Alberta. 23-24-94

MISCELLANEOUS

WANTED
1000,000 Railway Ties

The Central Railway Company of Canada invites tenders for supplying railway ties in lots of five to one hundred thousand, for delivery at Ste. Agathe, LaChute, Montreal and Grenville, in the Province of Quebec, and Hawkesbury, McAlpine, Ottawa, South Indian, Carleton Place, Bannockburn, Fenelon Falls, Orillia and Midland, in the Province of Ontario.

Tenders will be received until noon on December 20, 1912.

For specifications and other particulars apply to

F. STUART WILLIAMSON,
Chief Engineer,
44 Beaver Hall Hill,
23-90 Montreal, Que.

BUSINESS OPPORTUNITIES

Timber limits wanted on the Ottawa waters. Box 648, Canada Lumberman, Toronto, Ont. 23-75

Lumber Merchants or Manufacturers desiring additional capital address

G. DALRYMPLE,
23-80 Box 115, Newark, N.J.

For Sale

Saw Mill and fifty-three miles timber limits in County of Bonaventure, Quebec Province. For further particulars apply to J. D. Sowerby & Co., Oak Bay Mills, P.Q. 22-71tf

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest, if your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf.

For Sale

Established Lumber Business, with first-class mill, now running full time. Timber limits with 20 to 30 million feet of standing pine timber conveniently located, and all merchandise, etc. Price $55,000. This is worthy of investigation. Address Box 332, Canada Lumberman, Toronto, Ont. 19-22-t.f.

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 115 h.p. boiler, 100 h.p. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water.

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

Mounting Circular Saws

In mounting circular saws on a saw-spindle care should be taken that in addition to being absolutely round they are an easy fit—to allow for expansion—but not a loose fit, as in this case when running the saw is thrown out of centre; consequently a number of the teeth do not act on the wood at all, and perhaps

three-fourths of them have to do all the cutting, says the Timber Trades Journal. Consequently, the feed remaining constant and the cutting action of the teeth being more or less intermittent, rough and scored work is the result. On the other hand, the steady-pin and hole should be a fairly loose fit to obviate any chance of their binding. In addition to the saw having a perfect running balance, to do good work the teeth should be absolutely alike and uniform in length, shape, pitch, gullet, space, temper, and set. If a circular saw be only out of balance an ounce or two, owing to the great speed at which it is run an enormous amount of centrifugal force is set up, which is very detrimental to good work, and it also unduly wears the belt and also heats and wears the bearings. If the saw is in perfect balance and all the saw teeth uniform and each taking its fair share of duty, it will be found that much less frequent sharpenings will be necessary, and the quality of the work will be greatly improved. A saw, when properly mounted, should in the horizontal line incline very slightly towards the timber, so that the teeth at the back of the saw may rise without scoring the wood. Of course, saws can be forced through wood in almost any condition, but there is no doubt it will amply repay all users to keep them in what may be termed scientific order, as undoubtedly, as someone has truly observer, "the tool room is the heart of the saw mill."

Sappy Oak

Sap oak has suffered unjustly from abuse, and has been neglected because it has not been properly understood. The sap part of oak has been considered as inferior, and the outside or sappy boards have never been regarded with much favor.

All the same, if properly cared for from the time it is cut until it is used, sap oak will often give good results. For certain schemes of finish in cabinet work it is really a better body to work on than heart oak. It is the same way in flooring.

If one but takes care of the sap and segregates it from the heart stock so as to get it all together for harmony in texture and color, there is a chance to do just as effective work with sap as with heart. There is no comparison of sap with heart for timbers and exposed work outside where durability is an object under the method of using the timber plain; but with the modern systems of treating wood, the sap part of oak is being made much more useful and durable even for outside work.

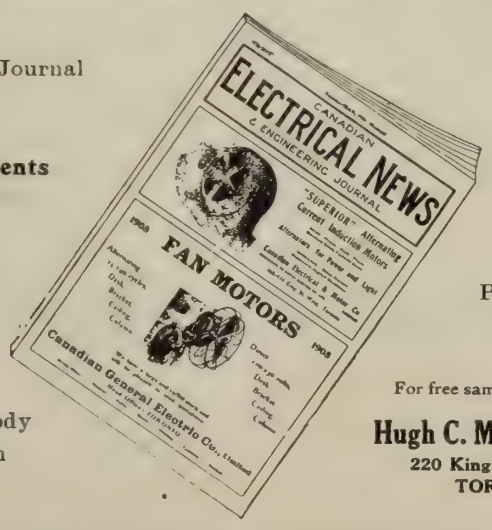
If sap-oak flooring is selected and laid with care, and properly stained before finishing, it will present a beautiful appearance. The same applies, but in a higher degree, to furniture and cabinetwork. The only thing necessary is to take care of the sap stock from the time it is cut until it is ready to be used.

To have the sap dominating in the particular work in which it enters, and the work carried out right, one can get new appreciation of the possibilities and beauties of sap oak. The sappy part of oak is more likely to check from the sun and wind.

Idle Pulleys

The idle pulley—that is, the pulley on the lineshaft that may have been put there to drive something one day, but is not in use now—is an unnecessary burden, says The Wood-Worker of Indianapolis, and should be taken off and carefully put away for future use. If such pulleys are of the split variety, it is easy enough to do this, as it will only take a few moments with a wrench. When you take such a pulley off, go over it carefully, clean it up thoroughly, and then give a coat of shellac or varnish to the outside. This will protect it from moisture, and make it look better, too. Then put it away carefully in the shop or stock room, some place where it will keep in good condition.

A National Journal for **Managers Superintendents Electricians** and **Engineers** of **Electric Light Plants** and Everybody Interested in Electricity



The Only Electrical Paper in Canada

Useful to Subscribers

Profitable to Advertisers

For free sample copy address

Hugh C. MacLean, Ltd.
220 King Street West,
TORONTO

FOR SALE

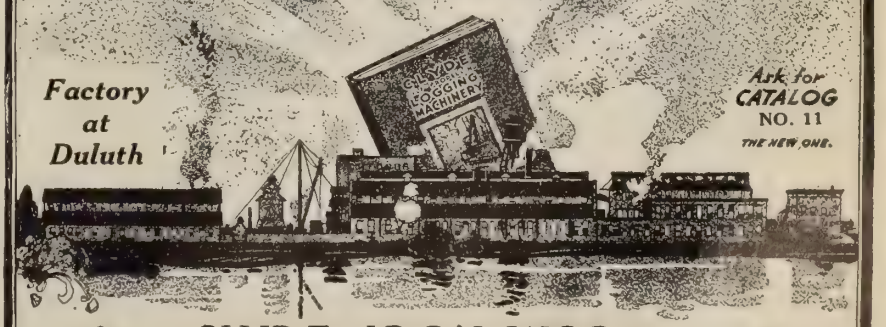
Steam Logging Engine, by Alex. Dunbar & Sons

Denaston Breakey

Breakeyville, P. Q.

"CLYDE-GRADE Than which there is None better."

It doesn't seem possible to build Logging Machinery of greater economy and efficiency than that described and illustrated in this new catalog of ours:- but of course if it ever becomes possible, we will build it.



Factory at Duluth

Ask for CATALOG NO. 11 THE NEW ONE.

CLYDE IRON WORKS
Manufacturers at DULUTH, Minnesota, U.S.A. of
CLYDE-GRADE Logging and Hoisting Machinery.

Review of Current Trade Conditions

Ontario

Great difficulty is being experienced by lumbermen at the present time in obtaining a sufficient supply of labor. As a result, the work of cutting is being very much retarded and unless many more men can be obtained in the next two or three weeks, the cut is likely to fall much below the average. Taking this into consideration, and the fact that the stocks at present held by the mills are remarkably low, there is every likelihood of an all round stiffening in prices. The supply of cars is still far from normal, a shortage of box cars being particularly noticeable just now on the Canadian Northern Railway in the Sellwood district.

Very little alteration has taken place lately in the hardwood market; the demand being still very brisk and prices firm. Many enquiries are also coming through for the United States markets.

The middle grades of pine have started a sharp movement after being practically inactive for some time past. In these grades, 1 inch by 6, 8 and 10 inch, and 2 inch by 4 inch and wider, in white pine, and 2 inch red pine have shown a marked improvement. The demand for the lower grades and mill culls shows no decrease. Prices for white pine at Sarnia show a considerable increase. An advance of $1 is being asked for mill culls; No. 1 cuts are selling at $44 for 1 inch by 8 and up wide; common and dressing has increased by $1 and is selling at $23; box is stronger by $1 to $3 for No. 1 and $1 for No. 2. Hemlock prices are inclined to rise owing to the heavy demand and the exceptionally short stocks obtainable. It is difficult, however, to quote prices as manufacturers may be said to be making a special price for each individual sale.

Eastern Canada

Reports from St. John, N.B., indicate that a firm market still continues for New Brunswick lumber. In some cases prices are firmer than they were a fortnight ago. The only really important consideration in making a deal is whether the stock required can be secured at all. Woods operations have been started throughout the province of New Brunswick, with weather conditions rather adverse, on account of lack of snow and the wet condition of the woods. Prices of supplies for the camps are high in many cases, particularly for hay and oats.

The good market conditions have resulted in a number of rotary mills starting operations in the woods. Rotary sawn deals for winter delivery are bringing $14.50 f.o.b. St. John, for a specification of 50 per cent., 7 and 8 x 3, balance 9 in. up, averaging 14 ft. long. City deals are practically all sold. Present prices are about $15.50 on the wharf at St. John for a specification of 60 per cent. 7 and 8 x 3, 40 per cent. 9 in. and up. There is a scarcity of merchantable spruce boards 4 inches and up wide. The present price is about $13.50 per M. for an ordinary specification, clears out. The clears are bringing $25 and are scarce. Low grade and refuse stock are in good demand but very scarce. Refuse boards or planks would bring $10 per M. Pine boards of 10 ft. contents and up, 8 inches and up wide, are selling at about $23 on yards. Stocks are very scarce.

Freight rates to the English and United States markets remain high. In the New England States trade is good and is being carried on upon a $25 base, delivered at Boston. Indications are that a $27 base would not be a surprise in the near future. About 40,000,000 ft. of logs will be held over in the St. John booms this winter. With a continuance of the present active demand, holders of these logs will be able to take orders for early delivery in the spring.

A notable scarcity is reported in low grade white pine and in spruce boards at Boston, and it is not unlikely that an advance in these items will take place before long. Shingles also are rather scarce and prices have advanced. Red cedar shingles however, have been fluctuating both up and down. A few weeks ago they seemed to take quite a start but since that time they have fallen off. On the whole, trade conditions are healthy and prices are firmly maintained. The general market in the United States is reported to be good although some slight hesitation has developed since the election. Most of the large dealers, however, are looking for a good winter business.

Eastern spruce at Boston is in good demand. There is a fair volume of business in frames on a $25 bases. Random is in fair demand but buyers are not in a mood to take on large stocks. Holders of spruce boards will make no concessions whatever. Buyers simply have to pay the full price asked or lease the stock for the next buyer. Quartered oak is selling well at Boston at $88 to $90. Plain oak and maple are in good demand. Hemlock at Boston is in fair demand at firm prices. Eastern clipped boards have been bringing $23.50. Northern hemlock boards are firm at $22. There is a firm demand for shingles at Boston and prices are firm. Holders of extras are asking for $4.25 and for clears they want $3.90 to $4. The market for lath is steady at $4.50 for 1⅝ in. and $4 to $4.25 for 1½ in.

At New York there is a firm tone to the market for eastern spruce. Manufacturers are able to control prices. Stocks among local yards seem fairly plentiful for the winter trade, but the present rate of consumption would not take long in bringing about a shortage. Yard managers are figuring upon replenishing their stocks during the winter by carload shipments. Continued strength is reported in the hardwood markets at New York. There is every indication of continued strength in the demand for hemlock at New York.

Western Canada

In the prairie provinces the lumber markets are still characterized by a remarkably strong demand for all classes of lumber and at the same time by a continuance of the inability of the railroads to take care of orders. The wheat crop of the present year was enormous and, as a result of the failure of the railroads to supply the rolling stock necessary for its shipment, many warehouses and elevators have been built in which to store the grain.

The following are some of the prices quoted by retailers in Winnipeg:

No. 1 Pine, Spruce, Tamarac, Fir, Larch and Cedar

2 x 2, up to 16 ft.	$30.00
2 x 4, 2 x 6, 6 to 16 ft., except 10 ft.	29.00
2 x 8, 6 to 16 ft., except 10 ft.	30.00
2 x 4, 2 x 6, 2 x 8, 10 ft.	31.00
2 x 10, 8 to 16 ft., except 10 ft.	31.00
2 x 10, 10 ft.	33.00
2 x 12, 8 to 16 ft., except 10 ft.	33.00
2 x 12, 10 ft.	35.00
3 x 4 to 6 x 8, 8 to 16 ft.	32.00
3 x 10 and 4 x 10, 8 to 16 ft.	33.00
3 x 12 and 4 x 12, 8 to 16 ft.	34.00
2 x 4, 2 x 6, 2 x 8, 18 to 22 ft.	33.00
2 x 4, 2 x 6, 2 x 8, 24 to 32 ft.	36.00
2 x 10, 2 x 12, 18 to 22 ft.	35.00
2 x 10, 2 x 12, 24 to 32 ft.	37.00
2 x 14, 4 x 14, up to 32 ft.	39.00
2 x 16, 4 x 16, up to 32 ft.	40.00
2 x 18, 4 x 18, up to 32 ft.	41.00
2 x 20, 4 x 20, up to 32 ft.	42.00
3 x 4, 4 x 12, 18 to 32 ft.	38.00
6 x 6 and 6 x 8, 18 to 32 ft.	37.00
6 x 10, 6 x 12, 8 x 12, up to 32 ft.	38.00
6 x 14, 8 x 14, 12 x 18, 18 x 20, up to 32 ft.	40.00
6 x 16, 8 x 16, 14 x 20, 16 x 20	43.00
For lengths 33 to 35 ft., add per M.	3.00
For lengths over 35 ft., special price.	

Flooring

No. 1 and No. 2 Fir, Edge grain, 3 or 4 in.	$53.00
No. 1 and No. 2 Fir, Edge grain, 6 in.	50.00
No. 3 Fir, Edge and Flat grain, 4 and 6 in.	44.00

Siding

No. 1 and 2 Fir, 6 in.	$44.00
No. 3 Fir, 6 in.	40.00
No. 3 Fir, novelty, 4 in.	40.00

The prices prevailing on oak run from one inch plain rough $120, to quarter-sawed one inch rough $162. Two inch quarter-sawed $147. Birch, bass and white pine timber are commanding good prices.

It is claimed that throughout the prairies practically all the dealers have been obliged to refuse orders because they were unable to secure lumber. A greater lumber famine is predicted.

The Canadian Pacific Railway recently put an embargo on some companies in Winnipeg and Regina and against the towns of Saskatoon and Edmonton. It was claimed that the merchants in these last two towns held cars a very long time before unloading. It was found that some shipments made to Winnipeg were held sixty days before unloading. Dealers were not always to blame, however, as the railroads themselves have had many a delay in handling cars.

The quantity of logs scaled in British Columbia during October was not so large as in the month previous, but it was well up to the high average which has been made during the present year. Official returns are 64,139,728 feet, showing that the large totals are still being maintained. Production of logs will be larger this winter than last, since in the interior, mill stocks are very low and many men will go into the woods. Last winter, because of the slow lum-

Partial view of booming ground and lumber yards

Easy to Sell

¶ It's easy to sell "Cleveland-Sarnia" lumber because its the kind you and your customers can absolutely depend on.

¶ "Cleveland-Sarnia" has stood for quality since the day our first log was cut.

¶ Sawing all the year round, we are never without complete stocks of Norway and White Pine lumber for prompt shipment.

¶ Do you require heavy timbers? We cut them any length required up to 60 feet from Pine and B.C. Fir.

SEND US YOUR ENQUIRIES AND ORDERS

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

A. F. Holden, Pres. J. M. Diver, Vice Pres. and Gen'l. Mgr. E. C. Barre, Ass't. Mgr.

ber market, interior lumber manufacturers relied mainly on the stocks of logs they had on hand.

Demand for lumber continues strong, and in all lines of trade business is good. Export trade at Victoria is also brisk. The only backward feature with business with the prairies is car shortage, which is quite serious, and there is little prospect of alleviation for some time, since the wheat crop is given first attention. It is reported from Saskatchewan that dealers there want lumber badly, their stocks being low, but are unable to get their orders filled owing to the scarcity of cars. One of the causes of the scarcity is that merchants do not unload goods promptly, preferring to pay demurrage charges rather than warehouse the goods. It is estimated that in the vicinity of Vancouver alone there are six hundred cars held in this way.

United States

A slight falling off in the demand for lumber is reported from a good many of the markets of the United States, although the trade in the Northern States is about as active as usual. General indications are that there will be a continued heavy demand from the building trade throughout the balance of the present year. Heavy sales of northern pine are reported from the Tonawandas as purchasers have shown a strong desire to secure stocks. The increasing scarcity of box and other low grades is causing the price to stiffen and there is every likelihood of higher prices before next spring.

Chicago:—Northern pine is firm and all sales are being made at higher prices than those which prevailed a year ago. Most of the yards are carrying light stocks and are ordering only as they require stocks to keep up with orders in sight. Full prices are being paid by the trade without question in practically every case. The hardwood market continues very strong. Wholesalers report that enquiries and orders are plentiful. Red and white plain oak are firm in all grades. The demand for quarter sawed white oak shows an improvement. Birch, maple and basswood are more than holding their own. Hemlock stocks in second hands are lower than usual. There is a good prospect for a heavy demand during the early part of the winter and a slight advance in prices would not be a surprise. The demand for southern pine yard stock is strong. Stocks at mill points are reported badly broken.

Buffalo:—There is a good demand for northern pine, with low grade stock bringing a good price on account of scarcity. The trade in shop lumber is about up to the average. It is often easier to sell lumber than to secure cars in which to ship it. Low grade hardwoods are in good demand at high prices. The demand for hardwood railway ties has brought about the scarcity which prevails. Stocks of low grade hardwoods are much lower than they were a year ago. Plain oak is being sold about as fast as it comes on the market. Large stocks of hemlock are all in for the season. Dealers would like to get more if they could.

North Tonawanda:—Heavy sales of northern pine are reported. The increasing demand for box and low grades and the scarcity of these stocks, have resulted in strong prices. Predictions are frequently made that they will soon go much higher.

Great Britain

Trade reports from the Old Country show that the total imports of Great Britain for the month of October, totalled £71,000,000, an advance of more than £10,000,000 compared with October of 1911, or an increase of 17 per cent. The exports amounted to more than £48,000,000, an increase of almost £5,000,000 or an improvement of 10 per cent. For the ten months the imports show an increase of 9 per cent., the total being nearly £600,000,000, or about £50,000,000 more than the total for the corresponding ten months of the previous year. The exports amounted to £402,000,000 for the ten months showing an increase of 7 per cent.

The spot market at London continues active, and forward contracts are quite numerous, in spite of the fact that at this time of year this class of business is not usually very brisk. Apparently, importers are more confident that usual. Prices continue steady and dealers are showing an encouraging desire to secure goods. The high level of freights continues in spite of the increase in new ships building. Deliveries at the London docks for the week ending Nov. 9th, totalled 11,816 standards as compared with 3968 during the corresponding week of last year. At Churchill & Sim's recent auction sale, a lot of 3 x 8 to 14 in. 9-19 ft. U/s spruce from Halifax brought £9 15s. per standard. A lot of 3 x 5/7 in., 8/20 ft. U/s brought £8 15s: A shipment of pine from Quebec, 3 x 8/9 in., 13/14 ft. fourth Bt. sold for £11.

No change of any importance is reported in the trade at Liverpool. The controlling factor in connection with prices of shipments from Canada is the high price of freight. Shippers of spruce deals from New Brunswick or Nova Scotia who are under contract for delivery, would willingly pay extreme rates to secure tonnage before the season closes, but the tonnage cannot be secured as it is finding better employment in other directions. There have been practically no spruce deal importations at Liverpool for some time and it is not considered likely that any will arrive from St. John or Halifax until the regular liners from Montreal and Quebec are unable to make those ports. The tonnage which is released from the St. Lawrence will then be available for the St. John and Halifax trade. This however, will only permit small parcels to be shipped.

Stocks of spruce at Liverpool and in the surrounding district have been greatly reduced in all the favorite sizes. An interesting reference to the spruce situation at Liverpool is made in a recent issue of the Timber Trades Journal which says: "Some of the small merchants seem to be imbued with the idea that the whole of the spruce industry in New Brunswick and Nova Scotia has its sole existence centred in this district. The sooner the consumers get this out of their heads the nearer they will approach to a sane view of the real state of things and realize that there are other markets and other countries who are consumers of spruce deals."

The pine deal market at Liverpool is unchanged. Some favorite sizes and qualities have become quite scarce.

Indications are noticeable at Manchester of an easing off in the timber trade as a result of the bad weather conditions which have prevailed, together with the firm prices. Prices of spruce and pitch pine have broken all previous high records for the past 20 years and are being easily obtained. Spruce deals are dearer. Recently they were selling on the quay at £10 10s. for 7 x 3, in. At latest report, they had advanced to £11 and were selling rapidly.

The timber trade at Glasgow continues fairly brisk with encouraging indications for the immediate future. All of the wood consuming industries are well supplied with orders.

British Columbia Log Market

Owing to very windy and wet weather only a few logs reached Vancouver recently from up the coast, and there are very few booms of fir for sale there. The tendency is for an advance in prices, good booms bringing as high as $7, $10, $13 and from that down to $6.50, $9.50 and $12 for the poorer lots. The mills are all running up to capacity, and it seems likely that there will be something approaching a log shortage about the middle of February next. Shingle cedar is bringing from $8 to $9.50, lumber logs from $10 to $12, hemlock about $6.50 to $7. Prices for lumber are well maintained and the mills have plenty of orders.

Barbados Trade Report

S. P. Musson, Son & Co., Barbados, B.W.I., report under date of November 7th, regarding lumberstuffs, as follows: White pine—There have been no arrivals to note during the fortnight, but receipts are expected, and further shipments should sell to advantage. Spruce—The position is very similar to that of white pine. Stocks are light, and supplies are wanted. Pitch pine—We note the arrival of the "M. J. Taylor" from Scranton, Miss., with 356 m. ft., and 75 m. by S. S. "Trym" from Mobile, both of which were contracted for many months ago. Shingles—No arrivals, and supplies are wanted. Shooks—Some 905 bdls. have come to hand for dealers' account. Woodhoops—We have received a shipment of 531 bdls. French hoops.

Tonawanda Grading Rules for Soft Woods

The Tonawanda rules are so often mentioned among lumber dealers that a mistaken idea prevails that these rules have actually been drawn up and authorized by some recognized Tonawanda association. The Canada Lumberman frequently receives enquiries for these rules and the only reply is that they are not to be had in printed form.

The question "What are Tonawanda grading rules for soft woods?" is perhaps best answered in the words of a pioneer Tonawanda lumberman, now dead, who replied "there are no rules for Tonawanda grading of lumber. Tonawanda inspectors (the men who do the sorting) are not governed by rules. They are educated by long familiarity with grading that has come down from the early days of the Tonawandas as a lumber market." In other words Tonawanda lumber grading is not by any fixed rule or set of rules. The grades have deviated very little from those established when the local market was in its infancy. The grades are fixed, but it is impossible to draw up a set of rules for the guidance of any one not familiar with the traditions of local lumber.

A recent report from Seattle, Wash., says that approximately 100,000,000 feet of lumber has been purchased in the last ten days from Oregon and Washington mills by the three Eastern car building companies, according to information given out yesterday by lumber agencies here. The orders are to be delivered in large lots this winter to the following: Canadian Car and Foundry, 20,000,000 feet; American Car and Foundry, 40,000,000 feet; and the Pullman Company, 40,000,000 feet.

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Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Prices Stiffening at St. John

St. John, N.B., Nov. 20; (Special correspondence of the Canada Lumberman): The lumber business in this section of the country still continues in the same firm position as two weeks ago. If anything, prices are somewhat firmer but it is not quite the question of price that is important. Rather, it is whether the party buying is able to get the stock which he wants, as stocks are about all purchased and mills are sold up to time of closing of navigation, which is expected to take place mostly any time.

Practically all the operators have started work in the woods, but are much hampered by shortage of labor and the wet conditions of the woods as this has been a very wet season from beginning to end. Wages for woodsmen run from $27.00 to $35.00 per month according to the class of men, and it is really very hard to get good men. Operators are forced to take what they can get. This, with the bad condition of the woods, will be very apt to shorten the cut of logs in this section. The same will apply to northern New Brunswick and the State of Maine. It will also tend to increase the cost of logging as it is making the work of yarding very slow. Prices of hay and oats are very high, especially hay, which is a short crop. It is felt that later in season prices may recede, but it will then be too late to get in a supply at a cheap hand. Taken as a whole therefore, it is felt that the cost of logging this year will be somewhat higher than before.

Rotary Mills After the Business

Many rotary mills are starting operations in the woods, as, since the rise in price of lumber, more men have decided to operate. The writer is aware at the present time of eleven operators within twenty-five miles radius, who will saw out about 15 million, nearly all English deals. This, it is felt, will pay better than American stock, as the latter is expensivc to saw and, being largely two inch, will not turn out the scale of the log.

Prices for rotary sawn deals for winter delivery or early spring f.o.b. St. John are, for a specification of deals 50 per cent. 7 and 8 x 3 balance 9 in. up to average 14 feet long, $14.50 per M. sup. feet; 3 x 4-5-6, $9.75 per M. superficial ft. Deal ends are about the same. as scantling. For this stock sawn into American sizes say about 60 per cent. 2 x 3, 2 x 4 and 2 x 6, 40 per cent. 2 x 8 and up about $13.75 is being offered f.o.b. cars St. John.

City cut deals are practically all sold, but if any were for sale, the seller at present would be able to realize for a specification of 60 per cent. 7 and 8 x 3, 40 per cent. 9 and up $15.50 per m. on wharf at St. John; 3 x 4-5-6 would bring $13.50 and ends about $12.00.

Merchantable spruce boards 4 in. and up wide, are very scarce, In fact very few dry boards are to be had. The spruce at present is $13.50 per m. for an ordinary specification of boards, clears out. These are bringing about $25.00 per m. and are also scarce.

Low Grade Stocks Good Sellers

The market for low grade or refuse stock is also good, but practically no stocks remain as local demand has been good up to the present. Parties having any refuse boards or planks are able to realize $10 per m. with refuse deals 3 x 5 and up $9. Refuse 2 x 3, 2 x 4, and 3 x 4 bring $10.

Pine boards of smaller sizes under 10 feet contents are in good demand, the price being about $16 f.o.b. cars, with the larger boards 8 in. up wide at about $23 on yards. Stocks of dry pine are practically all sold up, the new sawn pine being green and not ready for shipment.

Freight rates to the English market remain the same as at last writing. Large quantities of deals, scantlings, etc., are now waiting liner shipments, which will begin in a few days as a C.P.R. boat is due Nov. 23. The quantity in scows would probably be in the vicinity of 4 million feet.

Freights to United States ports still remain at $4.25 and $4.50 to Sound and New York, with very few vessels to be had. Quite a large quantity of American stock from interior mills is being held on scows awaiting vessel shipments.

Good Demand in New England States

Business in New England still continues good and no business is being done at less than $25.00 base, delivered Boston. It is felt that with three to four of the very large mills being tied up for the season the capacity of which was over the 2 million mark per week, the price will increase and possibly reach the $27.00 base price in the near future, should the present rate of consumption increase.

A large quantity of logs will be held over in the St. John booms this winter, in fact about 40 million feet, but if business keeps as at present, the holders of these logs will be in a position to take orders for early delivery and thereby get the benefit of the early spring prices, which has not been the base for some years as there has been a shortage of logs for early sawing.

The St. John River Log Driving Co. have finished the season's rafting and booms have been taken up for season. The total quantity of logs rafted was about one hundred million feet.

Brisk Trade at the Tonawandas

North Tonawanda, N.Y., Nov. 22.; (Special correspondence of the Canada Lumberman): An accident to the swing bridge over Tonawanda River to Tonawanda Island has tied up half the lumber business at the Tonawandas. The lumber barge Helvetia struck the abutment to the island approach of the bridge, which is the only communication with the mainland, and dislodged it so much that the draw cannot be closed for a week or ten days. Meanwhile four big mills in Tonawanda Island have shut down and most of the yards have laid off all workers. The fifty freight cars which is the average daily allotment for the Tonawanda Island lumber district have been filled with lumber and no more will be dressed or made ready for shipment until the bridge is in commission again to permit communication by rail. There are in all between 150 and 200 freight cars more or less loaded with lumber on the Island which is the home of half the local lumber industry.

Leonard Wiedeman, prominent in local lumber and wood-working circles, died yesterday after a brief illness from consumption. The deceased had been in ill health however, for a year. He was injured while making an inspction of his mill when a lumber truck tipped up and he was pinned beneath the load. Mr. Wiedeman was a native of Germany. He came to the Tonawandas 30 years ago and grew up in the lumber business. He started with nothing and at the time of his death was the owner of a large wood working plant at the north end and was interested in other enterprises in connection with local lumber trade.

An active market the last two months has greatly depleted stocks at the Tonawandas which in connection with an unexpected dearth of tonnage in the lumber trade will mean that more stock than usual will be held over at upper Canadian and American ports for transportation to the Tonawandas in the spring. Boats are rapidly laying up and rates are almost prohibitive. As high as $5 a thousand has been paid during the last ten days for cargoes of hardwoods from Lake Michigan ports while as high as $4 has not been unusual even for white pine. Most of the local wholesalers have closed their receipts for the season. White, Gratwick & Mitchell, one of the largest handlers of lumber at the Tonawandas, will be compelled to leave 8,000,000 feet on the docks at upper lake ports in spite of the fact that they will have boats on the way down right up to the close of navigation.

While coming down Lake Superior bound for the Tonawandas, the Str. Barth of the Edward Hines fleet, lost a deck load of lumber consigned from a Canadian port to Smith, Fassett & Company of North Tonawanda.

82,386,618 feet of lumber was shipped east over the Erie canal from the Tonawandas during the season of navigation just closed for 1912. This total is 11,000,000 feet more than during 1911 and 1,000,000 in excess of 1910. Shippers who are familiar with the local market say that the 1912 total for lumber sent east over the Erie canal would have been close to the 100,000,000 feet mark had it not been for the six weeks stop in navigation on account of the Bushnell's Basin break which was responsible for much lumber being shipped by rail that otherwise would have gone by the water route.

Building continues active in the territory supplied from the Tonawanda market. Representatives of local dealers report more favorable weather than usual at this time of the year and that building contractors are making the most of it in the erection of houses, factories, etc. The great fruit belt of New York State had particularly favorable crops of all kinds of fruit and the farmers and fruit growers are buying heavily. Here in the Tonawandas there is an exceptionally heavy building boom. One capitalist has twenty houses under construction and will complete thirty more early next summer. These fifty houses are all worth at least $3,000 a piece and are being built in a section of the city that has just been improved by the extension of city sewers and water. Another large residence

FOR SALE

100 M. Miramichi 4th., Pine,
3 x 7 and up, 10′ and up

200 M. 6″ x 2″ Spruce, 10′ and up

50 M. 5″ x 2″ Spruce, mixed

100 M. 2 x 4 and up Spruce, mixed

300 M. 3″ x 7″ and up "

300 M. 1″ x 4″ and up 6′ and up
Log Run Pine, narrow,
averaging about 6″

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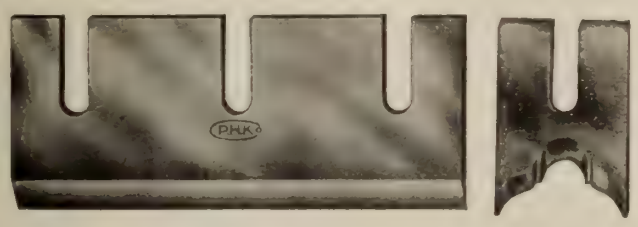

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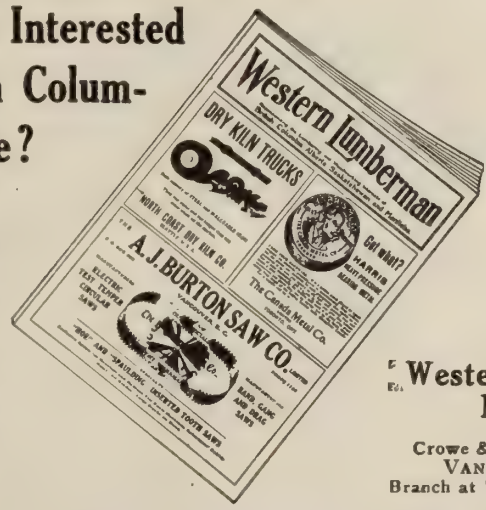

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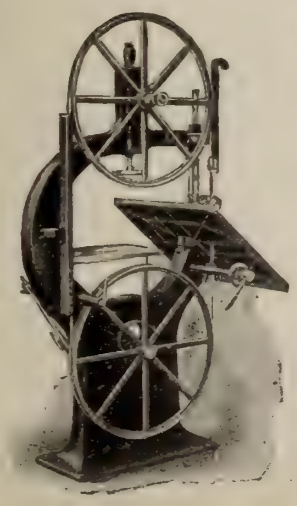

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JOINTERS—8, 12, 16, 20, and 24-inch.
BAND SAWS—20, (foot or belt power) 26, 32, and 36-inch.
SWING SAWS—6½, 7, 7½ and 8-foot lengths
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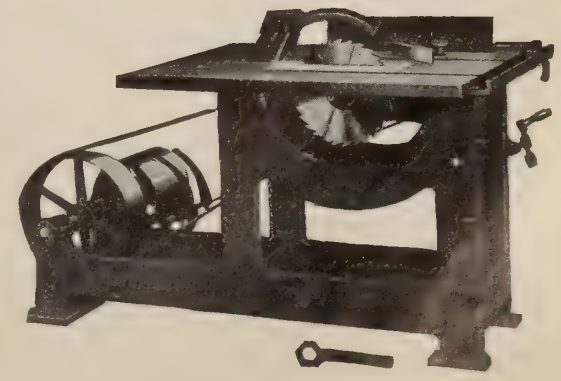

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section in the south end will be improved by the erection of another 100 houses the first of which will be started in the spring.

Ottawa Cut Exceeding all Records

Ottawa, Nov. 23rd.; (Special correspondence of the Canada Lumberman): According to figures compiled the lumber cut in Ottawa this year will be the largest in the history of the city. The total cut will measure approximately 350,000,000 feet, of which 90,000,000 feet will be by J. R. Booth, 75,000,000 feet by the W. C. Edwards Company and 20,000,000 by the E. B. Eddy Company. McAuliffe & Davis, and Shepard & Morse, the two other largest lumber dealers have not yet totalled their cut, but representatives of both firms say the totals this year will be nearly two million feet more in each case than any previous year.

Spruce and pine will make up the most of the cut. Cedar and hemlock have been more scarce this year than last. There are about 4,000 men in the shanties employed by Ottawa firms, all of whom are getting higher wages than has ever been paid before. The average pay with board being: foremen $75 a month, cullers $50, and shantymen $30.

There never has been such a demand for lumber as there has been this year, say the dealers here. Orders have come from all parts of Canada. Building has been phenomenally active all over the country particularly so in Western Ontario, and Ottawa has been called on to supply a good deal of the lumber required. A single example to corroborate this is given by a local lumberman who says that in the small town of Leamington, with population of 2,650, 80 houses have been built this year.

Several exceptionally large buildings now in course of erection in Ottawa will keep local woodworking industries busy until spring in preparing the interior woodwork. Mr. Russell Blackburn, a director of the Hawkesbury Lumber Company, is building a modern ten-storey office block on Sparks street, which is sufficiently far advanced to begin work on fitting up the interior. As a matter of fact lumbermen are spending the most money in Ottawa just now in putting up modern buildings on the principal streets of the city.

The Balkan war is having a bad effect on the lumber camps. Many of the men in the camps were from the Balkan states and Austria. Since Austria became involved in a dispute over certain territory which the Bulgars wanted in the event of peace being declared, reservists of the army of that country working in the camps have been called home. Every man on the reserve list of the Balkan states armies was summoned to return to his native land soon after war broke out. One jobber, it is said, whose employees were nearly all Austrians, found himself almost without a man after the call to arms was issued by the Austrian government.

In order that the Dominion forest reserves may be better administered and protected they are being divided into ranger districts and houses are being built at the most convenient points for the use of the rangers. The first of these houses has just been built at the Duck Mountains reserve, near Kamsack, Sask. The ranger at this point has charge of about 230 square miles of spruce and poplar forest.

Mr. R. R. Williams, treasurer and chief salesman for the McAuliffe Davis Co., has returned from a business trip through New York State and Vermont. He reports business as remarkably good.

An extension to the present plant of the Ottawa Car Company is to be built at once. Taylor & Lackey, of Ottawa, have just been awarded a contract to build a $40,000 extension on Slater street. Next spring work on an entirely new plant will be begun on the 75 acres of land the company bought recently, about six miles from the city. The most modern car works known to the trade will be built on the site. Model cottages for workmen will also be built by the company. Most of the plant which is now in the centre of the city will be transferred to the new site, but there will always be a city branch, of which the new building will be a part.

New Zealand Will Need Canadian Timber

That New Zealand will call upon British Columbia and (with the completion of the Panama Canal) eastern Canada for timber supplies to a greater extent as years go by, is proved by the following extract of a report by the New Zealand Lands Department:—

"From the more accurate information that is now available, it will be seen that there is ample justification for the diminished estimate of our timber supply. An impression prevails that, owing to the increased use of substitutes for timber in the construction of buildings, the future demand may not be so great as was anticipated. But, as the population of the Dominion is constantly increasing, and there is a rapidly increasing demand for timber in every branch of industry, we must realize that our timber resources will be taxed to their utmost capacity in a very few years, and the future generations will have to face a serious problem that, up to now, has not been regarded with much concern.

"Out of the gross amount of superficial feet of milling timber estimated to exist at the present time," the report continues, "it will be noticed that nearly one-third is composed of timber not commercially used to any extent, also a large portion is situated on land too difficult of access to be profitably worked for many years to come. The net quantity likely to be available for sawmilling would therefore amount to 16,000,000,000 superficial feet."

The report goes on to state that, as the present output of timber is over 400,000,000 superficial feet, it is a fair assumption that the average output for the next generation will be about 450,000,000 superficial feet. If the present estimated supply is divided by this amount, it will be seen that there is only sufficient timber to last the sawmiller for about 35 years, and this is without taking into account the inevitable loss that periodically occus through accidental fires.

During this period large supplies of foreign timber might be expected to arrive, and so reduce the strain on local forests, but, as every country in the world would be feeling the effects of the universal demand, it was not to be expected that such timber could be procured after 10 or 20 years, save at much higher prices than now are current, and in gradually decreasing quantity.

Improved Trade in Montreal

Montreal, Nov. 27. (Special correspondence of the Canada Lumberman): Both wholesalers and retailers report that business is again in good shape, and that in certain lines it is impossible to supply the demand. The scarcity of low grades of spruce and pine is more accentuated, and prices are naturally stiff. Present indications are that the market generally will continue to keep up, and that, if anything, quotations will advance still further. To some extent the position will be governed by the European political situation and its effect on money, but in the event of matters adjusting themselves in a peaceful way, there is every reason to expect that trade will be more brisk than ever. Lath is very firm in price, while shingles are difficult to secure.

There are again complaints of the shortage in cars and the congested condition of the terminals. One firm waited two months for a mill to get cars, and then found that the railway company refused to take the goods to certain points, owing to inability to handle the lumber. The retailers as well as the wholesalers are now getting after the companies, but they will doubtless be told the same tale—that the companies are doing all they can to relieve the situation.

A Good Year in English Trade

Exporters to Great Britain state that they have had a satisfactory season, and that present appearances point to an increase on the shipments of the previous year. This is in spite of strikes and increased freights.

Manufacturers in the province of Quebec report that it has been extremely difficult to get help, and that there is a scarcity of men to take out the logs. This circumstance, together with the heavy rains rendering the woods impassable in many places, points to a reduction in the cut as compared with last year.

The Canadian paper mills continue to operate under high pressure, as the demands are a little more than they can conveniently take care of. Prices hold very firm at the advance which has recently been made in all lines except that of news, and it is profitable that, on account of the high cost of raw materials, still further advances will be made in wrapping, writing, book, manila and bag papers at the beginning of the year. There will be no rise in newsprint, on account of the products of the new mills, but prices are strong, and probably will be influenced later by the general tone of the market. In box boards the scarcity of old papers for raw stock is becoming pronounced, and quotations are soaring.

Sulphite Market Stiffening

With regard to the sulphite market, there are signs of a world-wide shortage during 1913, and those consumers of chemical pulp who have not provided for their supply will no doubt have to pay very dearly for spot lots. European advices bear out this view, and from them it is learned that the supply at the mills is getting very scarce. Freights, too, will have an important bearing on the situation, as it is difficult to secure tonnage at anything like reasonable rates.

Steadiness characterizes the ground wood market. Very heavy stocks are being carried by the Canadian mills, but it is felt that, now the fall rains are over, the demand will improve considerably as the winter progresses. Seventeen to eighteen dollars per ton at the mill is the general price, according to the mill and freight facilities.

The Abitibi Pulp and Paper Company will have their ground wood mill in operation in 1914, but will not add newspaper until the following year.

Mr. Curtis, the manager of the Ontario Paper Co., Thorold,

Always Use

"AMPHIBIA"

(WATERPROOF)

Leather Belting

It
Costs Less
per day
of Service

In Belting, as in every other mill equipment, the cost per day of service is the only sure criterion as to value.

Sadler & Haworth

Tanners and Manufacturers

For Over 35 Years the Makers of the Best Leather Belts

MONTREAL TORONTO ST. JOHN, N. B. WINNIPEG VANCOUVER

☞To insure satisfaction—State where belt is to run☜

has been on a visit to Montreal. The company have a contract to make 100 tons per day for the Chicago "Tribune," and expect to begin operations about the middle of May.

Wholesale Lumber Prices in the United States

The U. S. Forest Service in its quarterly report upon wholesale prices of lumber during July, August and September, deals with market conditions as follows:—

The advance in wholesale lumber prices during April, May, and June, 1912, continued during the months of July, August, and September. The Pacific coast species which continued to rise were red cedar, Douglas fir, western hemlock, and redwood. Western yellow pine and Sitka spruce failed to follow the advance, but western larch, which showed no change during the second quarter, sold at better prices. In eastern soft woods yellow pine made decided advances; North Carolina pine and hemlock advanced somewhat, while the prices of white pine and spruce made no general change. Among the hardwoods prices were generally higher in the Southern and Central States, except on gum, while in the Northern States ash, basswood, beech, and birch were somewhat lower and maple somewhat higher.

In Washington western red cedar beveled siding No. 1 rose $2, shop No. 2 over $3, and the grades of shingles 25 cents to 50 cents. Douglas fir flooring No. 1 V. G. advanced $2.80 in Oregon and Washington, while timbers 12 inches by 12 inches, average 32 feet, rose about $1 in both States. The following advances occurred in western hemlock sales in Washington: Flooring Nos. 1 and 2 over $1, finish Nos. 1 and 2 nearly $4, dimension No. 1 common, $1.60, and ship-lap $1.25. Western larch prices show the following advances in Montana: Flooring A and B $1.25, finish A and B $2, drop siding A and B $1.50, common boards No. 2 over $2, and dimension No. 1 common, $4. In Idaho western white pine finish C select advanced $2 and finish D select declined $4. Western yellow pine shop No. 1, 6/4, rose 70 cents in California, $1.15 in Washington, but declined 80 cents in Idaho, while common boards No. 2 rose $1 in California but declined in both Washington and Idaho. In California redwood sales clears advanced slightly, sap clears declined $1.25, while common boards No. 1 advanced $2 and common boards No. 2, 75 cents. In Washington Sitka spruce shop No. 1 advanced $1.80, finish No. 2 clear and better declined $1.38, and flooring No. 2 clear and better more than $3, but beveled siding B advanced $2.50 and common boards advanced $2.

The advance in yellow pine prices applies almost without exception to all grades in all producing states. Finish B and better, 6 inches and wider, shows the following advances; Arkansas, $1.43; Louisiana, $1.36; Mississippi, $3.16; Alabama, $1.10; Missouri, 50 cents; Georgia, $1.80. Dimension No. 1, S1S1E 2 inches by 8 inches, 16 feet, made advances as follows: Texas, $2.62; Arkansas, $1.49; Louisiana, $3.17; Mississippi, $3.26; Alabama, $1.55. Mill-run values show the following advances: Texts, $1.42; Arkansas, $1.42; Louisiana, $1.80; Mississippi, 93 cents; Alabama, 88 cents; Missouri, $2.08; Florida, 63 cents. All grades of North Carolina pine quoted in this record advanced except dimension 2 inches by 8 inches, 16 feet, which declined slightly in South Carolina and North Carolina, and box edge, 4/4, which advanced in North Carolina but made no change whatever in South Carolina. The advance on No. 1 Edge 4/4 amounted in North Carolina to $1.38.

Hemlock prices were higher in the Lake States, but not generally in the Eastern States. Two-inch piece stuff advanced $1.08 in Wisconsin, but only 57 cents in Michigan. Boards No. 1 advanced $1.34 in Wisconsin and $1.42 in Michigan. In white-pine sales prices obtained for the upper grades were generally lower, while the lower grades sold at advanced prices. Selects C and better declined $2.80 in Minnesota and $4.45 in Wisconsin, and fencing No. 2 rose $2.09 in Minnesota and slightly in Wisconsin. Prices of New England and West Virginia spruce were generally lower, while Adriondack values were higher, except in the case of No. 1 and clear, which declined slightly.

Basswood firsts and seconds advanced $2.20 in Tennessee, while in New York there was a fall of $1.50. Unselected birch firsts and seconds advanced 65 cents in Michigan, $1.55 in Wisconsin, and $1.20 in New York. Hard maple firsts and seconds advanced $2.25 in Ohio, $1.15 in Indiana, 83 cents in Michigan, $1.82 in Wisconsin, 75 cents in New York, but declined $3.17 in Pennsylvania. Chestnut values were generally higher throughout the chestnut-producing States. Firsts and seconds advanced slightly in North Carolina and West Virginia, $2.26 in Tennessee, $1 in Kentucky, $2.37 in Virginia, and $4.53 in Ohio. The prices of plain oak were generally higher except in North Carolina. The following advances are shown in firsts and seconds; Arkansas, $1.96; Mississippi, $3.08; Missouri, $3.60; Tennessee, $2.14; Kentucky, $4.60; Virginia, $2; West Virginia, $2.41; and Ohio, $5.33. Yellow poplar values advanced in several States, but in Virginia and Tennessee all grades quoted declined. In other States the advances on firsts and seconds were as follows: North Carolina, nearly $3; Kentucky, $2.50; West Virginia, 89 cents; Indiana, nearly $4. Cypress firsts and seconds advanced $1.36 in Arkansas, held firm in Louisiana, and in Florida advanced $1.27. Red gum firsts and seconds declined 82 cents in Arkansas, $1.50 in Louisiana, but rose $2 in Mississippi. No. 1 common in both sap and red declined in Arkansas and Louisiana, but not in Mississippi. Tupelo firsts and seconds declined $2.46 and No. 1 common $1.45 in Louisiana.

No Chance for the Steel Barrel

James Innes, Chatham, Ont., in a recent letter to the National Coopers' Journal, belittles the possibility of steel slack packages taking the place of the wooden barrel and in the course of his letter, Mr. Innes says:—I cannot see where the steel slack package can be used for many of the purposes for which the present wooden barrel is used. It might possibly be used for shipping goods packed in excelsior, where covering only was required.

It is made from 28-gauge sheet steel, with about three corrugations to the inch. A sheet of steel is stretched in the middle in this corrugating portion, so as to give the barrel a bilge about the same as if made from 5/8-inch bilge staves. It is rolled into a circle, and held together by wire that is put through holes that are punched in the sheet. The head is somewhat like a tin-can cover, in which corrugations are formed low enough to make a chime for the barrel, with holes punched through both the head and the barrel, and four sheet iron keys are put through the head into the barrel to hold the head in shape. In other words, your description of the tin barrel fully covers the case.

The barrel would not hold sugar, flour, fine salt, or in fact, any foodstuff that has weight, as it has no hoops on it to support it when being rolled, and if thrown on its side, would go out of shape. The barrel is not suitable for cold storage, as it would rust if not galvanized, and would sweat badly if galvanized, as iron, as you know, is one of the greatest conductors of heat or cold.

I cannot see for the life of me where there is any field for this barrel to be used to any large extent, unless for something that can be poured into it that would solidify after being poured in. In other words, the only uses to which the barrel can be put would be as a cover, the same as straw boards or tin sheets—and not as a retainer requiring strength. We, therefore, do not think that the steel slack barrel is going to enter into competition at all to amount to anyhing with the wooden barrel, and, if used at all, will be used instead of paper cartons, or pulp boxes, where light goods are shipped, as it certainly could not be used as a returnable package, for, if handled in the ordinary way that freight is handled, it would be so much out of shape when returned, that it would be impossible to put it together again.

To Build Up Order

The following is a part of the letter sent out by the Supreme Nine of the Concatenated Order of Hoo-Hoo to all Vicegerents.

The new Supreme Nine extends greetings and good wishes to all of the Vicegerents as we enter upon the New Hoo-Hoo Year. Many of you, like most of us, are serving our great order officially for the first time. We of the Supreme Nine strongly realize that the success we all so much hope for this year depends very largely upon the earnest, faithful, enthusiastic work of the Vicegerents. The nature of our order does not require very much administrative machinery, but for that very reason a very large responsibility rests upon the comparatively few officers we have. Let each one of us do his best to put Hoo-Hoo upon a firm and lasting basis.

As we thus enter upon our new duties we have had placed before us some guiding principles which it is hoped will be faithfully followed during the year. We call your especial attention to the closing paragraph of the report of the Committee on Constitution and By-laws at the late annual held at Asheville, N. C., which reads as follows:

"Your committee further recommends that at its earliest convenience the Supreme Nine carefully prepare additional suggestions and instructions to be sent each Vicegerent, urging upon him that greater care be exercised, both as to the character and standing of men initiated and the conduct of Concatenations, to the end that the personnel of Hoo-Hoo shall be brought to a higher standard, and all of its meetings be invested with greater decorum and dignity."

Sulphite Production in Canada

One of the largest producers of sulphite pulp has furnished the United States Consul at Ottawa with a memorandum concerning the amount of sulphite and sulphate pulp manufactured for sale in Canada compared with 1907.

According to this statement, there is now some forty per cent. less sulphite produced for sale in the Canadian market than there was five years ago, or, including the sulphate pulp, the present production for sale is twenty per cent. less. The mills' daily production for sale

Canadian Headquarters for Lumber Insurance

Security **Lumber Insurance Co. of New York** Economy

42 Central Chambers, Ottawa, Ont.

Dominion License

E. D. Hardy, Canadian Manager
Ontario and Quebec

Canadian Deposit

Agents for Manitoba, Saskatchewan and Alberta: J. A. CHRISTIE & CO., Winnipeg, Man.

For British Columbia, address: Pacific Coast Department, Lumber Insurers General Agency 609 Corbett Bldg., Portland, Ore.

Agent for Martime Province and Newfoundland: J. G. RAINNIE, Halifax, N. S.

ARE YOU SUFFICIENTLY INSURED?

SPECIAL RATES TO LUMBERMEN

Jenckes Boilers

WE aim to keep on hand a well assorted stock of Horizontal Tubular, Vertical and Locomotive Type Boilers. Your enquiry will probably find us in a position to ship the required boiler at once; if not it can quickly be built. Write us anyway.

The Jenckes Machine Co.
Limited

Sherbrooke - Montreal - St. Catharines - Cobalt - South Porcupine - Vancouver - Rossland
Works: Sherbrooke, Que., St. Catharines, Ont.

The Rat Portage Lumber Co., Ltd.

With Mills at Winnipeg, Man. Vancouver, B. C. Harrison River, B. C. Kenora, Ont. Rainy River, Ont. and Banning, Ont.

Manufacturers of

Lumber, Lath, Shingles, Sash and Doors

And all kinds of Woodwork and Interior Finish. Also Box Shooks and Packing Cases. White and Red Pine Lumber, Maple Flooring, Hardwood Lumber, Turned and Band Saw Work, Cedar Posts and Poles, Tamarac, Piling etc.

ADDRESS HEAD OFFICE **The Rat Portage Lumber Co., Limited - Winnipeg, Man.**

D. C. CAMERON, President and General Manager.

is given as follows, the mills starred being users of sulphite pulp in their own paper manufacture. The amounts given for these are surplus productions.

The history of sulphite making in Canada has in the past resulted unfavorably to a number of mills. The business, however, is now profitable and increasing in volume, but my correspondent expresses the belief that it is not likely to increase in production much more rapidly than the Canadian demand for sulphite pulp.

The amount of unbleached chemical pulp now being exported annually to the United States from Canada for sale is said to be between 40,000 and 50,000 tons, the balance of the export being destined for paper mills owned by the companies producing the sulphite pulp. It is claimed that the amount of Canadian sulphite exported to the United States for sale in the open market is less than it was a few years ago, while European shipments of this character to the United States have increased very materially.

Government Forest Management

.. By J. R. Dickson, F. E. ... ...

There is a tendency among people to view the lumbering industry and all it implies, from too narrow a standpoint; a tendency to regard the lumberman as the sole beneficiary in the exploitation of our timber resources and the great and only sinner concerned and responsible for the deplorable way in which so much of our timber land is to-day being destructively mined instead of intelligently cropped. This is wrong.

The lumberman, in large measure is not a felon, but a useful member of society, whose enterprise creates more wealth for his fellows than for himself. It is true that in doing so he is usually reckless in sacrificing the future producing power of the forest, but let us be careful to place the blame for this, not at his door, but where it truly belongs—with the body politic which permits and even encourages this thing, by stupid taxation laws, and the absence of any earnest attempt to enforce existing regulations through the actual and effective supervision of trained men on the ground.

In a word, then, this economic sin is consequent on the serious failure of the nation and the community to realize in this matter their own best interests as affecting this generation, their great and patriotic responsibility as affecting the next and all following ones. This, too, although we Canadians have only to look across at the Lake States to see a striking picture of what happens when a people or community permit their timber wealth to be exploited by unregulated private greed.

The people of the United States allowed the lumbermen to mine, instead of assisting him to crop, their once virgin forests, and already this "limitable" resource has almost vanished. In recent years hundreds of sawmills supporting thousands of workmen have been forced out of business, leaving behind them vast denuded, fire-swept wastes, now growing only scrub oak and brambles, yet these very sand barrens might to-day and forever have been producing an annually increasing timber crop, had a forest policy been adopted in time, and a few trained foresters been employed and empowered to make the lumbering industry permanent. Never doubt it.

That old time prophet was surely thinking of forestry when he said, "for want of a vision the people perish." Certainly from every standpoint, to secure their own best immediate and lasting interests the people of any forest supported or aided community must look ahead, and co-operate with the lumbermen on a just and rational basis commensurate with the mutual benefits received. For every dollar the lumberman nets he pays out to you and to me at least three dollars for labor, machinery, supplies, transportation, stumpage and taxes. The fact is that even after selling any given timber limit the public still has a greater business interest in it, both direct and indirect, than has the lumberman who ostensibly owns it.

Here in Canada the nation or province happily owns the land, the community supplies the labor, and the lumberman brings the capital and enterprise. What more right and natural than that this trinity of interests providing respectively the three elements of wealth production should co-operate cordially on a proper basis of rewards and responsibilities, in guaranteeing that our forest land shall be permanent producer of increasingly valuable dividends.

Inasmuch as the first move toward this end must come from the people, I would suggest the advisability of each government concerned requiring all lumbermen operating within its domain, on absolute forest land to submit annually an estimate covering the amount and location of the timber which it is proposed to log during the ensuing season.

Then, as fast as men with the needful training and judgment to do the work can be obtained, the timber properly removable from these cutting areas should be definitely marked, and later on, its removal during the logging operations should be carefully supervised. This will insure full utilization of all marked trees, adequate care of the unmarked growing stock, and a reasonable disposal of the lumbering debris, in accordance with given requirements.

Splendidly Equipped Lumber Yards

Elsewhere in this issue will be found the advertisement of George I. McClure, wholesale hardwood lumber merchant, of Detroit, Mich. Mr. McClure's yards are among the most completely equipped in Michigan. Located therein is the storage warehouse of the Hanson-Ward Company of Bay City, which is under the management of Mr. McClure. The building is 140 x 50 feet and contains at all times a complete line of maple and oak flooring, veneered panels, stiles, rails and doors. The Hanson-Ward line is well known and is characteristic of the high grade of lumber carried by Mr. McClure in his own business. This firm specialize in mahogany, walnut and cherry, and can ship direct from mills or from Detroit. Associated with Mr. McClure in the conduct of the business are his brothers, Charles McClure, Robert McClure and Harold McClure, all with long experience in the lumber business.

Tobins Limited of Ottawa

Tobins Limited of Ottawa, manufacturers of tents, awnings, blankets, etc., are this season carrying a special line of lumbermen's supplies, which should appeal strongly to the trade. Their blanket department is complete with a varied line from the cheap shanty blanket to the all-wool covering, including a fine line of horse blankets and tarpaulins. Besides the ordinary line of oilclothing they are carrying a special high grade English make, of gloss finish, which is greatly superior to the ordinary brands. They are catering strongly to the lumber trade in tents, tarpaulins, blankets of all kinds, house covers and oilclothing and their large and spacious factory is prepared to take care of all orders from any part of the country.

We direct attention to the enlarged advertisement of the Imperial Timber & Trading Company, Ltd., Vancouver, B.C., in this issue. The Ontario orders booked by this firm have shown a healthy increase during the past two years, which they are no doubt justified in attributing to the uniformly high quality of the stock sent forward. The firm specialize in long timbers, but supply all B. C. products on demand.

Imperial Timber and Trading Co., Limited

HEAD OFFICE :
530-1-2-3 Rogers Bldg., VANCOUVER, B.C.

QUICK DESPATCH and PRICES RIGHT

Douglas Fir Timbers

STRENGTH QUALITY AND DURABILITY

any size up to 110 feet.

HIGH GRADE X X X RED CEDAR SHINGLES.

EXPORT AND RAIL SHIPMENTS

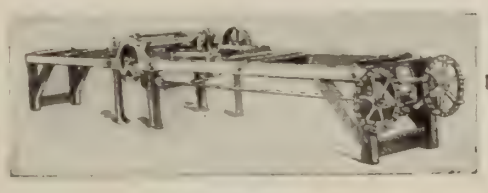
FIR AND CEDAR DOORS.

Keystone

Two or Three-Saw Double Edgers

are in a class by themselves

Heavy, Solid, well proportioned Frame



Built with Driving Pulleys Set-Works, etc.

3 or 3 Saw, Double Edger

The above cut represents the most up- o-date and accurately constructed edger on the market to-day

THE KEYSTONE

The arbor is made of forged steel and runs in long self-oiling boxes, is double key seated and carries two saws. Feed works are very simple. Wheel-set works. Spiked rolls on tables and fluted on the machine always keeps the lumber in place.

Rothfuss-Howard Iron Works

Williamsport - Pennsylvania

We'll Stand the Cost of J-M Permanite Packing if it Doesn't "Make Good"

We have so much faith in J-M Permanite Packing that we are willing to accept your order and let you test it entirely at our risk.

We put it up to the Packing. And you are to be the judge as to whether or not it makes good.

Try it on the most troublesome joints in your whole plant—joints which heretofore, with other packings, have needed constant attention.

If J-M Permanite Packing doesn't put an end to the troubles these joints have been giving—if it doesn't make them permanently leak-proof,—if it doesn't eliminate the need for following up—then return what you have left and we'll refund the full amount of our bill. The trial won't cost you a cent.

Surely it's well worth your while to find out—under the protection of our money-back offer—whether J-M Permanite Packing will put an end to those leaky joints and all the vexations and delays they cause.

Send our nearest Branch your order now with the above understanding, stating the conditions you have to overcome and the size of packing desired. We're making you a straightforward offer on which you have nothing to lose. We take all the risk.

The Canadian H. W. Johns-Manville Co., Ltd.

Manufacturers of Asbestos and Magnesia Products

TRADE ASBESTOS MARK

Asbestos Roofings Packings Electrical Supplies, Etc.

TORONTO MONTREAL WINNIPEG VANCOUVER

WE CAN

DOUBLE

THE CAPACITY OF YOUR

DRY KILN

GRAND RAPIDS VENEER WORKS

SAVE

60% Cutting Waste 35% on Machining

50% Fuel

Ask us WHY and HOW

Grand Rapids Veneer Works

Grand Rapids,

Michigan

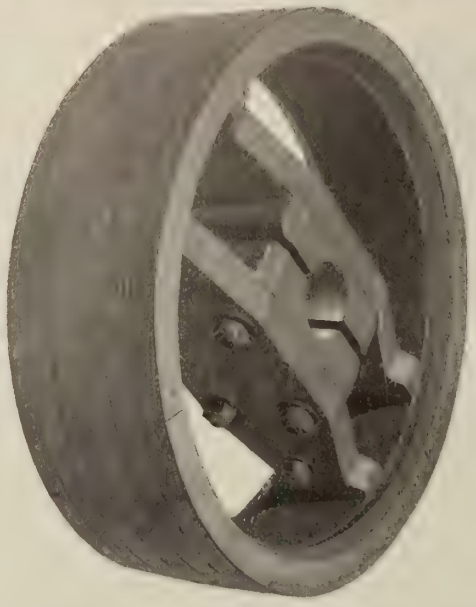
Suppose you have been accustomed to smoking a certain brand of cigarettes, why not give Tuckett's a trial anyway? If for nothing else than these reasons; the tobacco is the purest and finest selected leaf; the methods employed throughout are strictly modern and cleanly—and back of it all is 50 years of "know how" and experience.

Tuckett's Cigarettes

THREE VARIETIES

Tuckett's Special Turkish	**15c. for 10.**
Tuckett's Club Virginias	**15c. for 10.**
Tuckett's T. & B.	**10c. for 10.**

ELMIRA
Wood Split Pulleys



We have been making these Pulleys for nearly three years and have never had a complaint against the Pulley. If you will try one you will never use any other kind.

Elmira Machinery & Transmission Co.
Limited
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A. M. ELLICOTT CO., 301 St. James St., Montreal

CEDAR
Shingles

Campbell - MacLaurin Lumber Co.
Limited
Board of Trade Building, MONTREAL

Oats Oats Oats

I make a specialty of Oats in bags

Get my prices before you buy

Alexander Butler
Traders Bank Building, TORONTO, ONT.

EDGINGS

Ontario

Hammond Bros.' sawmill at Gorrie, Ont., is reported to have been sold.

J. A. Duval & Sons' sawmill at St. Marys, Ont., was recently injured by fire.

Wm. Welsh, Hensall, Ont., has moved his planing mill from that place to Toronto.

The Algoma Hardwood Flooring and Lumber Co., Ltd., Steelton, Ont., have been incorporated.

Smith Bros. have registered a partnership to carry on a milling and lumber business at Windsor, Ont.

The Spanish River Pulp and Paper Mills will probably have the two additional paper machines ordered recently, in operation by the beginning of February, when the paper output of the company will run about 200 tons a day.

The Beaver Board Company, Buffalo, N.Y., of which James Battle is the Canadian representative are contemplating the erection of a factory at Thorold, Ont. They have purchased a site and will apply to the council for a fixed assessment.

The city of Toronto is calling for tenders for various supplies, including lumber, cedar posts, and paving blocks. Specifications may be secured at the office of Public Works, Purchasing Department. Tenders will be received until December 10th.

In spite of several reports which have been published of late to the effect that arrangements have been made for rebuilding the large plant of Graves, Bigwood & Co., at Byng Inlet, Ont., the company report that no definite arrangements have yet been made.

Mr. J. A. Heise, lumber dealer, and sash and door manufacturer, of Stouffville, Ont., has sold out his entire business. The planing mill and sash and door factory has been bought by Mr. W. T. Boynton, and the lumber yard and general building supply business has been bought by D. M. Heise & Co. The members of the partnership are Mr. J. A. Heise and Mr. D. M. Heise. Mr. J. A. Heise is retiring from active management, and Mr. D. M. Heise will have charge of the company's business.

The Herman H. Hettler Lumber Co., of Chicago, recently closed a deal whereby it became the owner of over 20,000,000 feet of white pine logs owned by Graves, Bigwood & Co., Byng Inlet, Ont. This transaction involved an outlay of about $275,000. The Graves, Bigwood & Co.'s mill burned last May, so they had to sell their logs, of which the Hettler company secured the choicest. Mr. Hettler states that he has made arrangements with four mills in the vicinity of Midland to saw these logs into lumber. Most of the lumber manufactured in the Hettler Georgian Bay operations goes to the eastern trade.

The Lake Superior Corporation, which controls the paper mills of the Lake Superior Paper Company, have had an extremely successful year according to the report presented at the annual meeting of the corporation, held recently at Camden, N. J. T. J. Drummond in his annual address reviewed the progress made in the year ending June 30, 1912. The earnings from the operations of the subsidiary companies (paper, steel and power), he said, had amounted during the year to $1,579,000, an increase of 30 per cent. over last year. The completion of and commencement of operations at the paper mills of the company would materially increase the earnings of the subsidiary companies of the corporation, as the Lake Superior Paper Company was a large consumer of power and wood.

Eastern Canada

Jasmin & Cantin, sash and door manufacturers, Cartierville, P.Q., have been registered.

D. N. Dube's saw mill at Amqui, P.Q., was recently destroyed by fire. It will be rebuilt.

J. N. Ducharme & Fils Limitee, lumber dealers, etc., St. Eleuthere, Que., have obtained a charter.

J. H. Leboeuf & Cie, sash and door manufacturers, Ville St. Pierre, P.Q., have dissolved their firm.

Jos. Desrochers and Quevillon, sash and door manufacturers, Montreal, P.Q., have been registered.

J. & L. Bougie have been registered to carry on business as sash and door manufacturers at Montreal.

Chevalier & Frere, Montreal, P.Q., have been registered to carry on a sash and door manufacturing business.

Ferdinand Bouffard's sawmill at Bromptonville, P.Q., was recently destroyed by fire. The loss was partly covered by insurance.

The Ville St. Andre & Co.'s sash and door factory ,Montreal, P.Q., was recently destroyed by fire. The loss was covered by insurance.

A report from St. George, N.B., states that the Woodland Pulp and Paper Company are considering the erection of a paper bag mill at that place.

J. Bouffard's saw mill at Bromptonville, P.Q., was destroyed by fire on November 14th., the loss being $6,000. The mill will be rebuilt and the owner will require new machinery.

Mr. James W. Sewall, Forester and timber estimator, of Old Town, Maine, is in northern New York, making a careful sub-division and cruise of an extensive tract in the Adirondacks.

Mr. Bonner, of New York, is reported to have sold to Pennington & Gagnes, of Quebec, eighty superficial miles of timber limits in Mount Murray Seigniory, adjoining Murray Bay. The price paid was $250,000. The whole Seigniory was bought by Mr. Bonner ten years ago for $45,000.

Donald Fraser & Sons, of Fredericton, N.B., have purchased the timber lands of the Scott Lumber Company and the Oromocto Lumber Company,

including 35,000 acres of soil right land, and the timber licenses owned by the Scott Company; also licenses on 72 square miles. The price is said to have been $150,000. The Scott holdings have recently been controlled by the Bank of Nova Scotia.

Construction work has begun on the news mill of the Donnacona Paper Company, and it is expected that the news mill, which will have a capacity of about one hundred tons per day, will be completed within the next year. The site is at Donnacona, on the Jacques Cartier River, in Quebec, and the Ambursen Hydraulic Company have the contract. A power plant will be erected as well as a dam 1,200 feet long and about forty feet high.

The new natural resources department of the Canadian Pacific Railway has decided to enter on a policy of reforestation of the waste lands along its lines in New Brunswick and Nova Scotia. The company announces that, if not held up by high prices, it will buy any waste lands along these lines that are not suitable for farming, put the best foresters in the country in charge of them, and start raising trees, the idea being to specialize in trees suitable for railroad ties and pulp wood.

According to a despatch from Fredericton, N.B., Donald Fraser & Sons propose to fit up the Victoria mill at Fredericton with band saws and other modern machinery and to operate it next summer, cutting about 10,000,000 feet annually. They are asking the city to give them a fixed assessment of $10,000 for a period of 20 years. The company have practically closed their purchases of the Scott and Oromocto Lumber Company properties and intend to make Fredericton their headquarters for these operations.

The Laurentide Pulp and Paper Company, Ltd., are about to extend their plant at Grand Mere, Que. Tenders have been called for the work, and contracts are to be awarded at an early date. It is intended to start work almost immediately on the building of a new power dam, which, when completed, will make an additional 25,000 horse power available. A large proportion of this power will, for the time being, be sold to other concerns, and several offers for it are now under consideration. The new pulp digester which is being installed will be in operation by January 1, and will have an output of 30 tons a day. This output has already been sold for two years ahead. The capacity of the ground wood department has also been increased by 25 tons a day.

Western Canada

P. & A. Friesen, sash and door manufacturers, Steinbach, Man., have dissolved.

James Leigh & Sons, Victoria, B.C., are considering plans for the enlargement of their plant.

The Excelsior Lumber Co. Ltd., has been incorporated with head office at Vancouver, B.C., and capital stock of $10,000.

The Menzies Bay Timber Co. Ltd., has been incorporated with head office at Victoria, B.C., and capital stock of $300,000.

The East Coast Logging Co. Ltd., has been incorporated with head office at Vancouver, B.C., and capital stock of $50,000.

Hill-Tout & Anderson have started a small mill at Abbotsford, B.C. They have a tie contract that will keep them busy for eight months.

A law suit has developed in Vancouver between Mr. Geo. Barbey and the sellers of thirteen timber licenses, involving $300,000. Mr. Barbey claims misrepresentation.

The mill of the Wattsburg Lumber Company at Proctor was totally destroyed on the first of November by a fire which is believed to have been started by an incendiary.

At Green City on the Nelson & Fort Sheppard line, East Kootenay, B.C., Mr. Peterson and associates, who own 19,000 acres of limits there, will build a large mill to employ 200 men.

The Kerr & Adams Manufacturing Co., Ltd., has established a woodworking plant at Humboldt, Sask. The company will manufacture high-grade millwork and interior finishing materials.

L. Robinson and J. Shrive will erect a large planing mill at Sutherland, Saskatchewan, on a site covering four and a half acres. The plant will be equipped for manufacturing special work and furniture.

Recently the British Canadian Lumber Company completed its large mill on Lulu Island at New Westminster. About $90,000 is to be spent on a planing mill, storing sheds and permanent office buildings.

The Empire Lumber Company's saw mill at Nanoose, B.C., is almost completed and at latest reports operations were expected to be commenced in a few days. The mill has a capacity of 150,000 feet per day.

The Great West Iron, Wood and Chemical Co., will erect an iron and wood working factory at Prince Albert, Sask., at a cost of $150,000. Information may be secured from Felix Frank, c/o the Prince Albert Board of Trade.

A factory is shortly to be erected in Calgary, at a cost of $75,000, to manufacture coarse grades of paper and card-board out of straw. This will be the only plant of the kind in Canada, although there are a number of similar factories in the United States.

The Johnstone Strait Lumber Co. Ltd., have been incorporated under Dominion charter to carry on business as lumber manufacturers with head office at Vancouver, B.C., and capital stock of $500,000. W. E. Burns, barrister of Vancouver, is attorney for the company.

Johnson & Smith are building a mill with about 50,000 feet capacity at Rosedale, near Chilliwack. Mr. Johnson was for a long time woods superintendent for the Abbotsford Timber & Trading Company, operating in the Fraser Valley, about twenty miles this side of Chilliwack.

The project of a group of English capitalists announced recently will result in the opening up of large areas in pulp wood situated in the northern parts of Alberta and Saskatchewan and around Hudson Bay. The proposal is to build what will be known as the Alberta, Peace River and Eastern Railway, spanning the distance of 2,000 miles which separates Hudson Bay from the Pacific Ocean. Sanction from the Government has already been obtained for the first 400 miles of the new road. The group behind the scheme is made up of such men as Rt. Hon. Lord Farrer, of Abinger Hall, Barking, Surrey, the director of a number of large English companies. The head offices will be in Ottawa.

Good White Pine

Ottawa Valley Manufacture

and

Ottawa Rate of Freight

4/4″ — 5/4″ — 6/4″ — 8/4″ — 12/4″

Shorts, Strips and Sidings

Particulars furnished on request

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920 Charlevoix Street, MONTREAL

Dry Mill Cull and Box Lumber Becoming Scarce

These grades are being rapidly picked up. We have still a nice stock of last season's cut.

White Pine *for the* Wholesale Trade

We advise you to write, wire, or 'phone without delay and get the benefit of our low prices.

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SCANDINAVIA BELTING — FEDERAL ENGINEERING & SUPPLIES LIMITED — TORONTO

is the original solid woven, impregnated cotton belt.
This belt is not made in plies and cannot come apart. It wears the same as any solid belt.
We can save you money on your belting maintenance, as well as your first cost.

Write for our descriptive bulletin

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GOODHUE BELTING WILL SAVE YOU

Time—Trouble—$$

Not only in its initial cost but in the delays and accidents it will prevent.

We make these claims for Goodhue Belts, because they stretch from 15% to 25% less than ordinary belts. This feature lessens the possibilities of accidents from loose belts, and insures the utilizing of all the power generated.

The "Acme Waterproof" Belting is made for wet places, and is very popular for this class of work. Use "Acme" for the wet places in your mill—it will save you hours of trouble and unnecessary delay.

Our Literature will interest you—write for it.

J. L. Goodhue & Company, Ltd., Danville, Quebec

Schacht

—The Lumber Truck that Builds Big Business

Do you know that one Schacht Lumber Truck is worth more to you in dollars and cents than six to eight teams and wagons?

Men who have experimented say that horses can no longer compete with motor trucks in the lumber business.

Won't you let us show you where you can save money on your 1913 operating expenses?

Our booklet will be mailed free on request. Write for it.

Schacht Motor Car Co. of Canada, Ltd.

Hamilton, Ontario

The Truck with Good disposition — built for Canadians with Canadian money.

A Few Specifications—

Motor, 45-50 H.P., four cylinders.

Ignition, magneto, with double system.

Oiling, plunger pump in crank case, separate feeds to all bearings, with splash system.

Clutch, cone, thermoid faced, 15½ in. diameter.

Transmission, selective sliding gear, 3 speeds, forward and reverse.

Emergency Brakes, internal, expanding on rear wheels, 18-in. drum. Service brakes on each end of jackshaft.

Frame, rolled steel channel section, 6-inch side members.

Frame, 217¾ in. long, 38¾ in. wide.

Axles, rear, rectangular, 2¾ in. wide, 4 in. deep, drop forged. Front Timken, 1 beam with solid section through centre, 2 in. wide, 2¾ in. deep, dropped forged.

Bearings, Timken roller bearings in wheels, jackshaft and steering knuckle, annular bearings in transmission.

Tires, 36 x 4 in. single front, 36 x 5 in. dual rear.

Wheel Base, 144 in.; tread 64 in.

Speed, 10 to 18 miles per hour on direct.

Loading Space, 11 ft. 5 in. back of seat on chassis frame.

Body, to order.

One to Five Ton Capacity

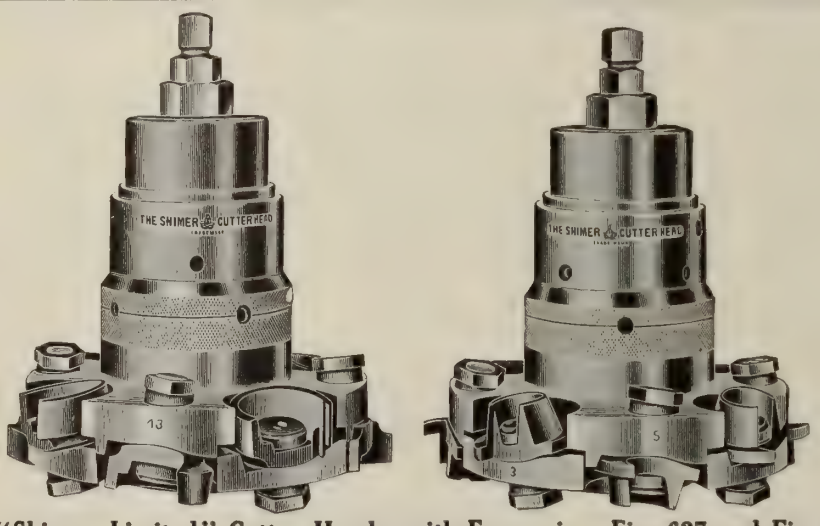
THE SHIMER CUTTER HEADS

Quality Machine Work

The planing mill man, furniture worker or any one who uses machines to finish wood products, will always find in the Shimer System of Tools the remedy for mill troubles, the power to increase output and the facilities to make a superior product.

No matter whether your work is Single Matching, Double Matching, Ship Lap, Jointing, making Glue Joints or Door and Sash patterns, if you desire to turn out quality product get the Shimer System in your mill.

Look over this page and then let us have your specifications.



The "Shimer Limited" Cutter Heads, with Expansion, Fig. 627 and Fig. 628.

For the High Speed Matcher

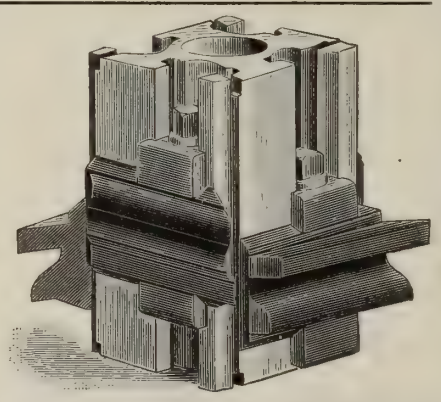
These Heads have a chucking device which self-centers them on the spindle and grips firmly thereto when the device is drawn up, overcoming the objectionable set screw as a means of fastening the Head to the spindle. It is reliable and practically perfect in results.

The Bits carry a larger areal surface and the Bit chambers are of greater depth to compensate for the new acute angle given to the Bits for greater relief to the parts coming into contact with the lumber.

They are simple and strong throughout, have no delicate parts to break down or get out of order, and are safe and efficient tools for matching flooring, etc., at high speeds.

Price, net, for Flooring, $72.46 the set complete.

The Shimer Combination Head for Door, Sash, Blinds and Mouldings



The Head illustrated herewith is intended more particularly for the mills which make only a few mouldings or Door and Sash patterns and change work several times a day. Where a mill runs on stock or has much work to do we advise running the Shimer Heads with Circular Bits on account of the greater wear and the fact that the Heads are always ready to be slipped on the spindle.

This particular outfit consists of one Combination Head with one set of Sash Bits, one set of Door Bits, one set of Cope Heads with Door Cope Bits and two Sash Cope Bits for the lower Door Cope Head. The outfit is sent complete for the low price of $47.31.

The Bits are quickly changed and set to the gauge, when the Door and Cope moulds or the Sash and Cope moulds will match to a nicety. There are no complications to puzzle or annoy operators. As the Bits are moulded on the back at an angle, they work with perfect clearance and maintain standard patterns. Bits can also be adjusted for different thicknesses of Door and Sash mould.

This Head is very strong and durable and with its combinations is applicable to every class of work. It will take Bits to make Door, Sash and various other mouldings and these Bits are quickly and accurately changed and adjusted by the use of a gauge.

We guarantee these tools to be of the best material and workmanship, and will send them on 30 days trial to any responsible lumberman returnable if not satisfactory.

Send measurements at once.

Our Popular Cutter Heads

Figs. 202 and 203 are the leading tools, having Conical Duplex Bit Seats and The Shimer Cutter Head Expansion. Flooring Bits will work from 13/16 to 1¼-in. in thickness with tongue and groove proportions expanded to suit.

Price, net, complete with one set of flooring Bits, the gauges for setting the Bits and wrench $40.95
Extra Bits for Flooring 11.44
Extra Bits for Ceiling 10.40

ith 4 Bits to Each Head

Jointer Heads

Figs. 54 and 55, with four Bits in line of work, shear the cut downwardly to insure a sharp and clean upper edge. They cut clean and free and are shipped out under our guarantee to give satisfaction.

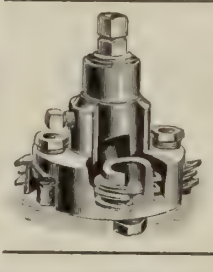
Price, Heads, complete with Bits for 15/16 to 1¼-in., net only $31.20
Extra Bits 1½-in. face, the set 10.40
Extra Bits, 2-in. face, the set 12.48

O. G. Batten Heads

Figs. 48 and 49 represent our best tools for this work, having 3 Bits in line of cut so arranged upon their seat inclines as to protect all but cutting edge against friction and wear.

Price, two Heads, complete with Bits, net only $31.98
Extra Bits, each, net 2.08

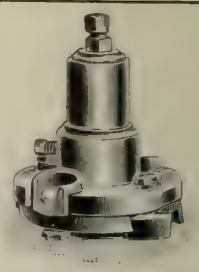
Double Ceiling Heads



Figs. 45 and 46, are made in solid section, steel forged, with Bits of special design to cut two tongues on one edge of board, and two grooves on opposite edge, to be re-sawed for two thin boards tongued and grooved. Very complete.

Price, with one set of Bits, net $40.94
Extra Bits, per set of (8) 16.64

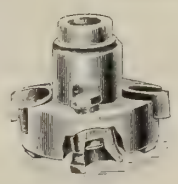
Ship Lap Heads



Figs. 38 and 39 are made of steel forgings, in solid section, designed especially for heavy duty. The bit seats have the latest improved slants to provide free cutting edges, and we sell them at the following low and net prices:

Heads with one set of Bits to work 15/16 to 1½-in. thick, net $34.84
Extra set of Bits 11.96

Door, Sash and Coping Tools



That save all the hand fitting. No changing of patterns, therefore, no trouble in framing door and sash parts when matched with the Shimer Cutter Heads.

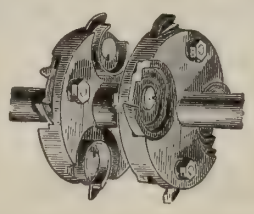
DOOR AND SASH HEADS

Fig. 82, solid flange, Door Head $10.75
Fig. 84, Expansion Door Head 13.35
Fig. 86, solid flange, Sash Head 9.75
Fig. 206, Expansion Sash Head 12.35
Bits to work 1-in. to 1¼-in. Doors, 4.. 7.28
Bits extra to work 1 to 1¼-in. Sash (2 Moulded Bits, $4.30; 2 Rabbeting Bits, $2.86) 7.16

COPE HEADS

Fig. 83, Cope Heads (2) $12.90
Coping Bits, each 1.43

The Shimer Box Board Matching Heads



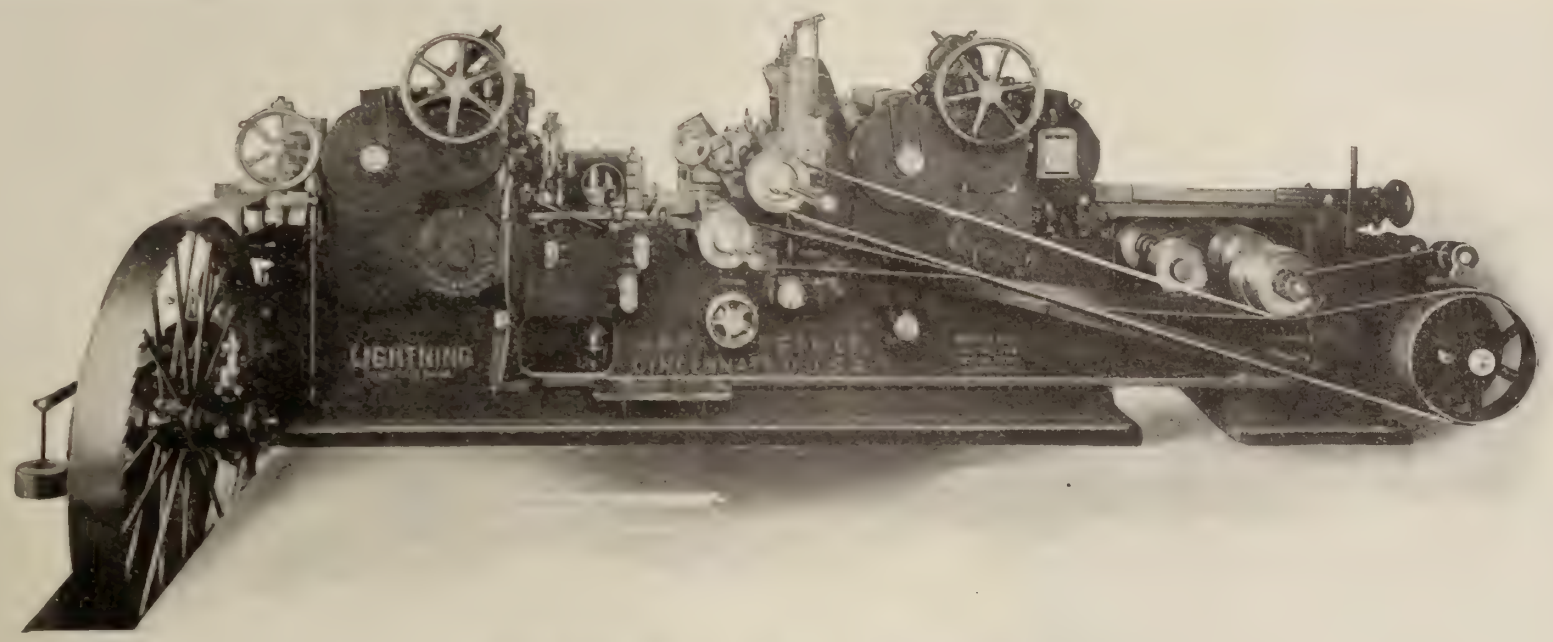
make a uniform cut and close fit, as well after years of use as when new, with no friction upon the Bits. For thicker material the Bits can be expanded.

Price for two Cutter Heads to match ⅜ to ½ inch, $29.15.

We also furnish when desired a Yoke Mandrel with self-oiling boxes, boxed f.o.b. Galt, $11.05.

Samuel J. Shimer & Sons, Inc.

Milton, Pa., U. S. A. - - - Galt, Ontario, Can.



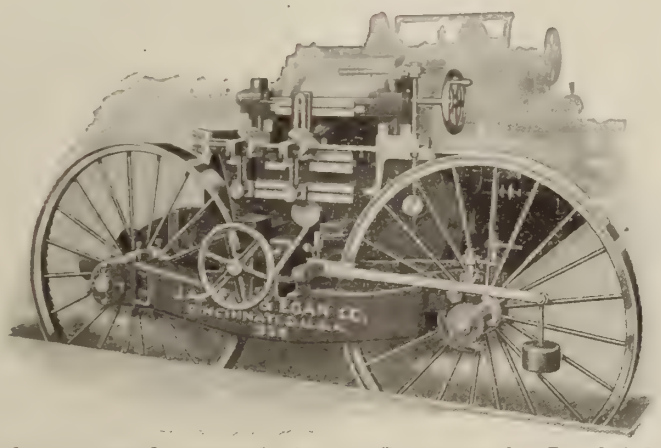
FAY-EGAN "LIGHTNING" **No. 333-335**

Matcher - Resaw

Cuts labor costs one-half—increases output 100 to 200% and raises grades 10 to 30%, in manufacturing bevel siding, ship-lap, box shooks, ceiling and flooring—

—You now use two men on the matcher and two men on the Resaw to manufacture bevel siding, ship-lap, flooring, ceiling, box shooks, etc., at 75 to 100 ft. per minute. On the new 333-335 Matcher-Resaw you can do this same work at 150 to 200 ft. and upward per minute, (a 100 to 200% increase in output) with only two men (one-half your present labor cost).

—and you save the cost of trucking and handling between the machines.



End view (guards removed) showing Resaw set for Bevel Siding, showing also easy accessibility to all parts.

—in addition to doubling and tripling capacity and cutting labor cost one-half or more, this machine will manufacture lumber without tearing out on knotty and cross grained stock, (raising grades 10 to 30%).

—Where it is possible to plane and match double thick and resaw after, this new machine will effect a wonderful saving—just figure it out for yourself.

—This new machine is a combination of our "333", the greatest matcher ever built, and our No. 335 Horizontal Band Resaw placed ***below the bed-line of the Matcher,*** eliminating dangerous overhead rigging and giving a steadier and more accessible mechanism. Blade is easily slipped off the wheels when Matcher only is to be used.

Write today for details of manufacturing lumber on a 333-335 Matcher-Resaw—"With the Resaw below the bed-line of the Matcher."

J. A. Fay & Egan Co.

465-485 W. Front St. Cincinnati, Ohio

Sales Offices:— *New York* *Chicago* *Seattle* *St. Louis* *New Orleans*

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$60 00	65 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
1½-in. No. 1, 2 and 3 Cuts	48 00	50 00
2-in. No. 1, 2 and 3 Cuts	48 00	50 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	24 00	26 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	30 00	32 00
1 x 12 common and dressing	39 00	41 00
1 x 10 and 12 mill cull stocks—		22 00
1-in. mill cull sidings		19 50
2 x 10 common		28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	22 50	23 50
1 x 10 inch box and common.	24 00	25 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	24 00	26 00
1-in. mill run shorts		20 00
1-in. deal cull sidings		16 00
1-in. flooring		28 00
1-in. mill run Norway		22 00
2-in. mill run Norway		25 00
Norway, c and cf 1-in.	34 00	35 00
Norway, c and cf 1½-in.	35 00	38 00
Norway, c and cf 2-in.	33 00	35 00
Spruce mill run	21 00	22 00
Spruce mill culls		18 00
Clear in. B.C. cedar, kiln dried.	55 50	65 50
Douglas Fir		
Dimension Timber up to 32 feet:		
8, 10x10, 10x12, 12x14, 12x12, 12x14, 14x14, 14x16		35 00
8x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 14x18, 16x18 18x18, and 20x20		35 50
6x14, 8x14, 12x18, 18x20		36 00
6x16, 8x16, 10x18, 12x20, 14x20, and 16x20		36 50
10 x 20		37 00
6 x 18, 8 x 18		37 50
6 x 20, 8 x 20		38 50
Lengths over 32 ft. take the following advances: 33 to 35 ft., 50c.; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5		
Fir flooring, edge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		45 00
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 00
1½-in. No. 1 4-ft. pine lath		4 50
1½-in. No. 2 4-ft. lath		4 00
1½-in. 32-in. pine		1 60
1½-in. No. 1 4-ft. hemlock lath		3 75
1½-in. mill run hemlock lath.		3 50
X pine or cedar shingles		1 05
XX pine or cedar shingles		2 25
XXX pine or cedar shingles		3 20
XX B. C. cedar shingles		2 40
XXX 6 butts to 2-in.		3 40
XXXX 6 to 23-16-in.		3 52
XXXXX		3 75
Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.		17 50
1 x 6 6-in. x 9 to 16 ft.		21 00
1 x 8-in. x 9 to 16 ft.		22 50
1 x 10 and 12 in. x 9 to 16 ft.		23 00
1x7, 9 and 11 in. x 9 to 16 ft.		20 00
1-in. No. 2, 6-ft. to 16-ft.		16 50
2x4 to 12-in., 12 and 14 ft.		22 00
2x4 to 12-in., 18 ft.		22 00
2x4 to 12-in., 20 ft.		24 00
2 x 4 to 12-in., 22 ft.		27 00
2 x 4 to 12-in., 24 ft.		28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		17 00

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	55 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4.	48 00
Ash, brown, common and better	37 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1sts and 2nds, 4/4	35 00
Birch, No. 1, com. and bet., 4/4.	30 00
Birch, 1sts and 2nds, 6/4 and 8/4	38 00
Birch, 1sts and 2nds, 10/4 and 12/4.	42 00
Birch, 1sts and 2nds, 16/4	44 00
Basswood, 1sts and 2nds, 4/4	38 00
Basswood, No. 1 com. and bet., 4/4.	33 00
Basswood, No. 2 and 3, common	17 00
Basswood, 6/4 and 8/4, 1sts and 2nds	42 00
Basswood, 6/4 and 8/4, com. & bet.	37 00
Basswood, No. 2 common and better.	29 00
Soft elm, 1sts and 2nds, 4/4	36 00
Soft elm, No. 1 com. and bet., 4/4	29 00
Soft elm, No. 2 and 3, common	16 00
Soft elm, 6/4 and 8/4 1 and 2	38 00
Soft elm, 1sts and 2nds, 6/4 x 8/4	50 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	31 00
Soft maple, com. and better, 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	34 00
Hard maple, 1sts and 2nds, 4/4	34 00
Hard maple, common and better, 4/4.	27 00
Hard maple, 12/4 & 16/4, 1sts & 2nds.	43 00
Red oak, plain, 1sts and 2nds, 6/4 & 8/4	60 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	65 00
White oak, plain, 1sts and 2nds, 4/4.	55 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	60 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	70 00
White oak, ¼ cut, 1sts and 2nds, 4/4.	86 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	90 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$53 00	55 00
1¼-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up	40 00	45 00
Pine good strips:		
1-in.	45 00	47 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	50 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	44 00
1-in. x 4-in. to 6-in.	32 00	36 00
1¼-in. and 1½-in.	48 00	53 00
2-in.	52 00	56 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	33 00	35 00
Pine, No. 1 dressing strips	26 00	31 00
Pine, No. 1 dressing shorts	22 00	26 00
Pine, 8 s.c. and better, 12 ft. to 16 ft.	25 00	26 00
Pine, 7 up s. c. siding 1-in.	22 00	25 00
Pine s. c. sidings 1¼ & 2-in.	29 00	32 00
Pine, s. c. strips 1-in.	18 00	20 00
1¼, 1½ and 2-in.	24 00	27 00
Pine, s.c. shorts, 1 x 4 to 6 in.	16 00	18 00
Pine, s.c. and bet. 1 x 5	22 00	25 00
Pine, s.c. and bet. 1 x 6	23 50	25 00
Pine, box boards:		
1"x 4" and up 6'-11'	15 00	17 00
1"x 3" to 6", 12'-16'	16 00	18 00
1" x7" and up 12'-16'	18 00	19 00
Pine shorts 6'-11' 1"x 10'	20 00	21 00
1x9 and 9 No. 1 barn	29 00	30 00
O. culls r & w p	11 00	13 00
Red Pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
Mill run Spruce:		
1"x 4" and up, 6'-11'	16 00	17 00
1"x 4" and up, 12'-16'	18 00	20 00
1"x 9"-10" and up, 12'-16'.	20 00	22 00
1¼"x 7" 8-9" and up, 12'-16'	20 00	22 00
1¼"x 10" and up, 12'-16'.	20 00	22 00
1½" & 2"x12" & up, 12'-16'	24 00	25 00
Spruce 1-in. clear (fine dressing and B)	27 00	28 00
Hemlock 1-in. cull	10 00	12 00
Hemlock 1-in. log run	13 00	18 00
Hemlock 2x4, 6, 8, 10, 12/16'	15 00	18 00
Tamarac	13 00	15 00
Basswood log run, dead culls out	22 00	25 00
Basswood log run mill culls out	26 00	30 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
Pine, s.c. and better, 1x7	21 50	23 00
Pine, s.c. and better, 1x8	23 00	25 00
Pine, s.c. and better, 1x9	23 00	25 00
Pine, s.c. and better, 1x10	25 50	27 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	15 00	18 00
Pine mill culls stock 1 x 12	20 00	22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	14 00	16 00
Lath per M:		
No. 1 white pine 1⅜-in. x 4-ft.	3 75	4 00
No. 2 White Pine	3 25	3 50
Mill run white pine	3 00	3 25
Spruce, mill run 1½-in.	3 00	3 25
Red pine mill run	3 00	3 25
Tamarac mill run	1 25	2 00
Basswood, mill run	2 50	3 00
Hemlock, mill run	2 75	3 00
32-in. lath	1 60	1 80
Pine Shingles		
xxxx, 18-in.	3 00	4 00
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	2 75	3 25
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

	cts.	
First class Ottawa waney, 18-in. average, according to lineal	85	90

Oak—Michigan and Ohio

By the dram, according to average and quality	62	70

Elm

By the dram, according to average and quality, 40 to 45 feet	80	85
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash

13 inches and up, according to average and quality	25	30
Average 16 inch	30	40

Birch

14 inch	18	20
15 inch	22	24
16 inch	26	28
18 inch	32	30

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up.	$18 00	19 00
Oddments	15 00	16 00
Boards, 1 and 2 in.	15 00	16 00

Birch Planks

1 to 4 in.	16 00	17 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$54 00
1 in., 8 in. and up wide	67 00
1¼ and 1½ in. and up wide	69 00
2 in. and up wide	72 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	67 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	44 00
1¼ in., 8-in. and up wide	57 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	48 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	23 00
1-in. x 5-in.	24 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	30 00
1-in. x 12-in.	35 00
1-in. x 13-in. and up	35 00
1¼, 1½ and 2-in.	32 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	21 00	25 00
No. 2, 1¼, 1½, 2-in.	19 00	23 00

Mill Culls

Mill run culls, 1-in.		18 00
1, 1¼, 1½ and 2-in.		19 00
No. 2	17 00	18 00

Lath

No. 1, 32-in. pine	1 50
No. 2, 48-in. pine	3 75
No. 1, 48-in. pine	3 25
No. 3, 48-in. pine	4 50
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

..PINE, SPRUCE, TAMARAC & LARCH..

Mountain Stock
Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
	27 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring.	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine mixed widths	20 00
No. 4 common pine, mixed widths	14 50
No. 5 common pine, mixed widths	10 00

SHINGLES

XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00

(Continued on page 72)

YES

HENRY DISSTON & SONS
EXTRA
CAST STEEL
WARRANTED
PATENT GROUND
PHILADELPHIA, U.S.A.,
REG. U.S. PAT. OFF.

You know what it costs to shovel and wheel sawdust

Save this High Cost by using a

Cyclone Blower

It will Blow the dust in any direction and as far as desired. Will Pay for itself in one months time. Will not clog or choke up. Built especially for the Circular Saw mill.

For full particulars address

The Ramey Co.

10 Wellington St. East
TORONTO, ONTARIO

Lumber Camp Ranges and Heaters

All Kinds of Stoves for Large or Small Camps

Our stoves are specially designed to meet all requirements of camp work.

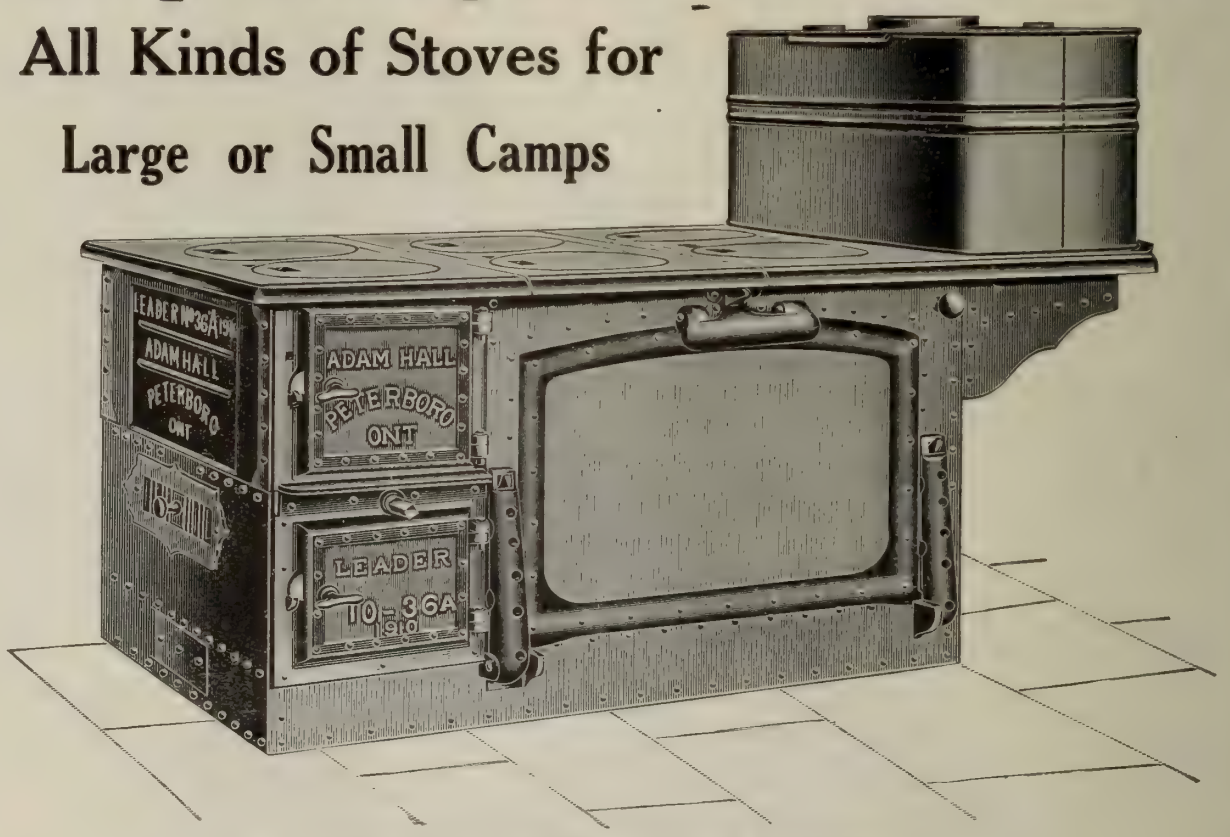
We know exactly what is necessary and desirable in this class of stove.

We put into all our stoves the best of material and workmanship coupled with the best of expert experience.

The 'Leader Range' for coal and wood, shown in this cut is specially adapted to Lumberman Camps, Boarding Houses, Hotels and Railroad Construction Camp Work. We also make this Range with side hinge doors.

It is large, heavy and strongly built. Has good oven space and large heating surface. When a good, solid, reliable stove is wanted the 'Leader' will give satisfaction.

Write for our catalogue.



NO. 10-36A SIX HOLE LEADER RANGE AND RESERVOIR

ADAM HALL, Limited - Peterborough, Ontario

Manufacturers of Ranges, Heaters, etc., for Lumber Camps, Hotels, and Railway Construction

Griplock Riveted Chain Belt

Cross Section of Griplock Riveted

No More Breakdowns—No More Delays

This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock.** **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

Sold by ## The A. M. ELLICOTT CO., Montreal, Que.

Elevating, Conveying and Transmission of all kinds a specialty

ENGINES and BOILERS

OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

We cater specially to the lumbering industries

Write for Prices and Information

E. LEONARD & SONS

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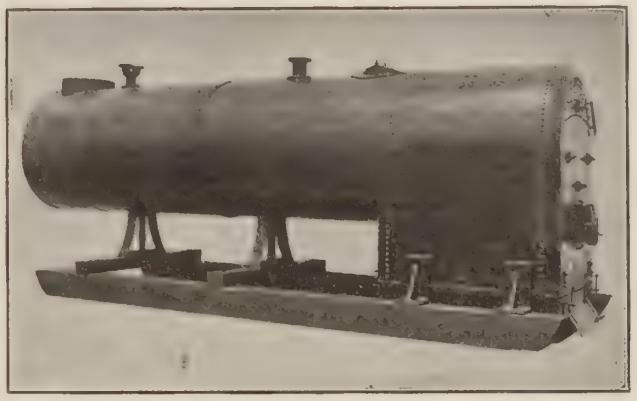
Agencies and Warehouses:—ST. JOHN, N.B. MONTREAL, QUE. TORONTO, ONT. WINNIPEG, MAN. CALGARY, ALTA. VANCOUVER, B.C.



Locomotive Boiler on Skids

"John Bull" *Larrigans*

Wear Like Iron

WE tan the leather these larrigans are made from and know they will stand all kinds of wet and rough usage when properly cared for. We put a counter stiffener in our larrigans and sew it in with the leg when soled and heeled—a very durable feature in our goods.

Next time you buy larrigans see that you ask for **"John Bull."**

R. M. Beal Leather Co.

Limited

LINDSAY, Ontario

Are your horses of use to you?

This seems an absurd question—and the answer is always **"Of course they are"**—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	$4.50 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	15.00 doz.

Johnson's Horse Liniment, No. 2 (an oil liniment)

1 gal. jugs (Imperial)	3.00 gal.
1 lb. bottles	6.00 doz.
2 lb. bottles	11.00 doz.

Johnson's Horse Colic Remedy

A sure and speedy cure for all kinds of Colic

1 gal jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz,

Johnson's Veterinary Healing Ointment (Gall Cure)

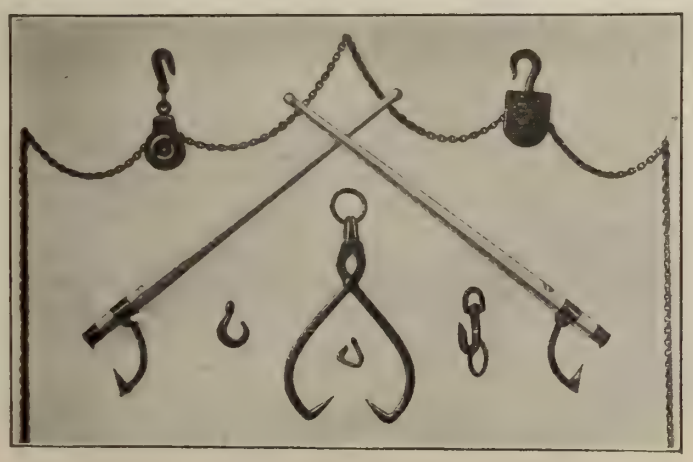
2 lb. tins	2.25 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 doz.

Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, **Collingwood, Ont.**



When ordering from your Jobber specify

Pink's Lumbering Tools

and if they cannot supply them order direct, and you will get the best tool made

The Thomas Pink Co.

Limited

PEMBROKE, Ont., Canada

Manufacturers of the best line of Lumbering Tools in Canada

CURRENT LUMBER PRICES—Continued

No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00
No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	46 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	30 00
No. 2 Barn 1 x 10	32 00
No. 3 Barn 1 x 6 and 8	23 00
No. 3 Barn 1 x 10	25 00
Box 1 x 6 and up	22 00
Box 1 x 10	23 00
Box 1 x 12	25 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

White Ash

1st and 2nd, 1 inch	40 00	42 00
1¼ to 2 inch	44 00	46 00
2½ to 4 inch	48 00	58 00
Strips	22 00	24 00
Common and culls	14 00	22 00

Black and Brown

1st and 2nd, 6 inch up	40 00	42 00
Common good culls	14 00	20 00
1st and 2nd 6 inch and up, red.	40 00	42 00
1st and 2nd, white, 6 in. & up.	30 00	32 00
Common and good culls	16 00	18 00

Elm

1st and 2nd, rock, 6 in. and up	34 00	38 00
Common and culls	16 00	20 00
1st and 2nd, soft, 6 in. and up	28 00	32 00
Common and culls	13 00	18 00

Maple

1st and 2nd hard	26 00	30 00
Common and culls	14 00	22 00
1st and 2nd, soft	26 00	28 00
Common and culls	14 00	22 00

BOSTON, MASS.

White pine uppers, 1 to 2 in.		100 00
Selects, 1 to 2 inch		90 00
Fine common, 1 in.		72 00
Fine common, 1¼ to 2 in.	74 00	75 00
No. 1 Cuts 1 in.		45 00
No. 1 Cuts 1¼ to 2 in.	58 00	60 00
No. 2 Cuts, 1 in.	35 00	37 00
No. 2 Cuts, 1¼ to 2 in.	45 00	48 00
Barn Boards, No. 1, 1 x 12	51 00	52 00
No. 1, 1 x 10		39 00
No. 1, 1 x 8		38 00
No. 2, 1 x 12	42 00	43 00
No. 2, 1 x 10	35 00	36 00
No. 2, 1 x 8	34 00	35 00
No. 3, 1 x 12	33 00	34 00
No. 3, 1 x 10	28 00	30 00
No. 3, 1 x 8	28 00	29 00
Canadian spruce boards		26 00
Spruce, 10 & 12 in. dimension.	26 00	27 00
Spruce, 9 in. and under dimen.		25 00
10 and 12 in. random lengths, 10 ft. and up	24 00	25 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 50	22 50
All other random lengths, 7" and under, 10 ft. and up	21 00	22 00
5-in. and up merchantable boards, 8 ft. and up, p 1s		21 50
Vermont spruce boards, matched		23 50
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		22 00

1¼-in. spruce laths		4 50
1½-in. spruce laths		4 00

New Brunswick Cedar Shingles

Extras		$4 25
Clears	3 85	3 90
Second clears		2 75
Clear whites		2 60
Extra 1s (Clear whites out)		1 65
Extra 1s (Clear whites in)	1 50	1 60
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 80	4 20
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 35
Red Cedar Perfection, 5 butts to 2¾		4 90
Washington 16-in. 5 butts to 2-in. extra red cedar	3 80	4 10

The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30 Maple, $3.25 per M. ft.; 1/24 maple, $3.50 per M. ft.; 1/20 maple, $3.75 per M. ft.; above cut to dimension.

3/16 3-ply maple, 1 st. good, 3¼c. per ft.; ¼ 3-ply maple, 1 st. good, 3½c. per foot, all f.o.b. Jamestown, N.Y.

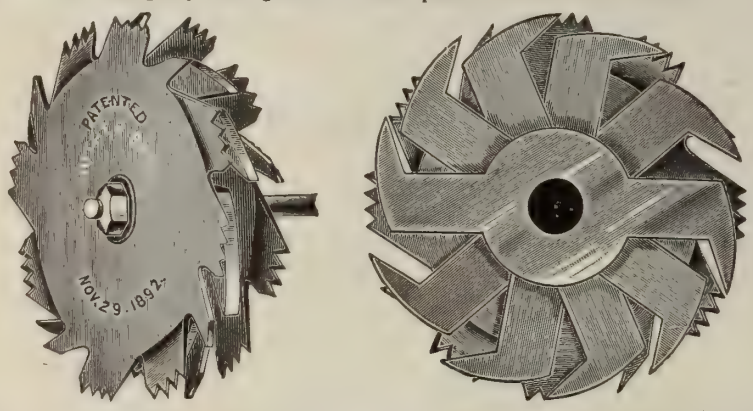
We Can Supply From Stock

Atkins, Hoe and Disston CIRCULAR SAWS, SAW BITS and SPRINGS.
Rubber and Leather Belting, BEST BRANDS. DISSTON "BEAVER" and SIMONDS CROSS CUT SAWS. PEAVIES and STOCKS, CHAIN, IRON and STEEL, SINGLE and DOUBLE BIT AXES, Etc,

Douglas & Co., Limited
Victoria Street, AMHERST, N. S.

HUTHER BROS. PATENT GROOVER OR DADO HEAD

For cutting any width groove from one quarter inch to 2 inches or over



Can be used on any Circular Saw Material. Will cut a perfect groove with or across the grain. This is the only Dado Head on the market that gives entire satisfaction on all classes of work. No screw adjustment. For different width grooves, simply remove or add inside cutters. Sold by builders and dealers of wood working machinery in all parts of the United States. Will send on approval, in competition with any other make on the market; if not the best return at our expense.
HUTHER BROS., SAW MFG. CO., Inc., 1170 University Ave., ROCHESTER, N.Y., manufacturer of Circular Saws, Morgan Pattern Lock-Corner Box Cutters, Concave Saws, etc.

International

Preparations for Horses are all sold on a Spot Cash Guarantee

Let us figure on furnishing you the following supplies for the coming season.

International Stock Food
We guarantee that your horses will do more work and keep in better order on less feed if they get International regularly.

International Silver Pine Healing Oil
Especially recommended for Sores, Bruises, Kicks, Inflammation and all flesh wounds.

International Worm Powder
Will quickly expel all kinds of worms.

International Distemper Cure
For Coughs, Colds, and Distemper.

International Colic Cure
Guaranteed to cure Colic in ten minutes.

International Compound Absorbent
Greatest Curb cure on Earth.

International Gall Cure
Cures while horses work or rest.

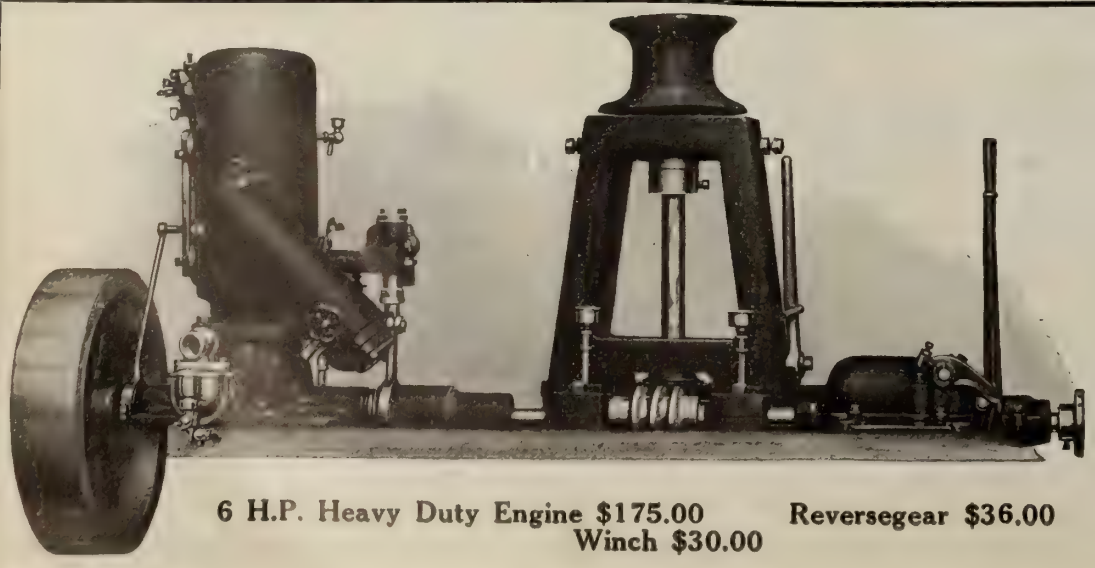
International Foot Remedy
Cures Foot diseases, keeps the hoof soft, elastic and tough

International Harness Soap
Gives new life to old harness.

All our goods are guaranteed to give satisfaction.

Write for Special Prices

International Stock Food Co., Limited
Toronto, Ont.



6 H.P. Heavy Duty Engine $175.00 Reversegear $36.00
Winch $30.00

River Driving Costs

will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25′ punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. Machinery $205.00. Complete punts $375.00. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 H.P.

Adams Launch and Engine Co.
Penetang, Ont.

MAHOGANY

We Carry Full Stocks of

FIGURED
CUBAN
VENEER

Making a Specialty of 1-20" and 1-8"

We import the highest grades of Fancy Hardwoods and on short notice can furnish logs or seasoned lumber suitable for cabinet work, interior finish or

Fancy Sawed Veneers

Other Stocks are:

English Brown Oak Butts—Sawed to order **Circassian and Turkish Walnut Logs**
High Grade Native Cabinet Woods and Veneers

Memorandum of Stocks on Hand and Prices on Application

The Martin-Barriss Co., Importers, Cleveland, Ohio

THE PETER GERLACH Co

MANUFACTURERS AND BUILDERS OF

CIRCULAR AND CYLINDER **SAWS**
STAVE, HEADING AND BARREL **MACHINERY**
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For the Manufacture of the Following:

STAVES	HEADING
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COMPLETE PLANTS
FOR THE MANUFACTURE OF
BARRELS, KEGS, STAVES AND HEADING
OUR SPECIALTY.
FOR PRICES AND FURTHER PARTICULARS, ADDRESS
THE PETER GERLACH Co. CLEVELAND. O. U.S.A.

An Up-to-date Cross-cutting Machine

Made only by— **Butterworth & Lowe**

Send for Descriptive rice List. 221 Huron Street, Grand Rapids, Mich.

"Brazel Patent" SNOW PLOWS

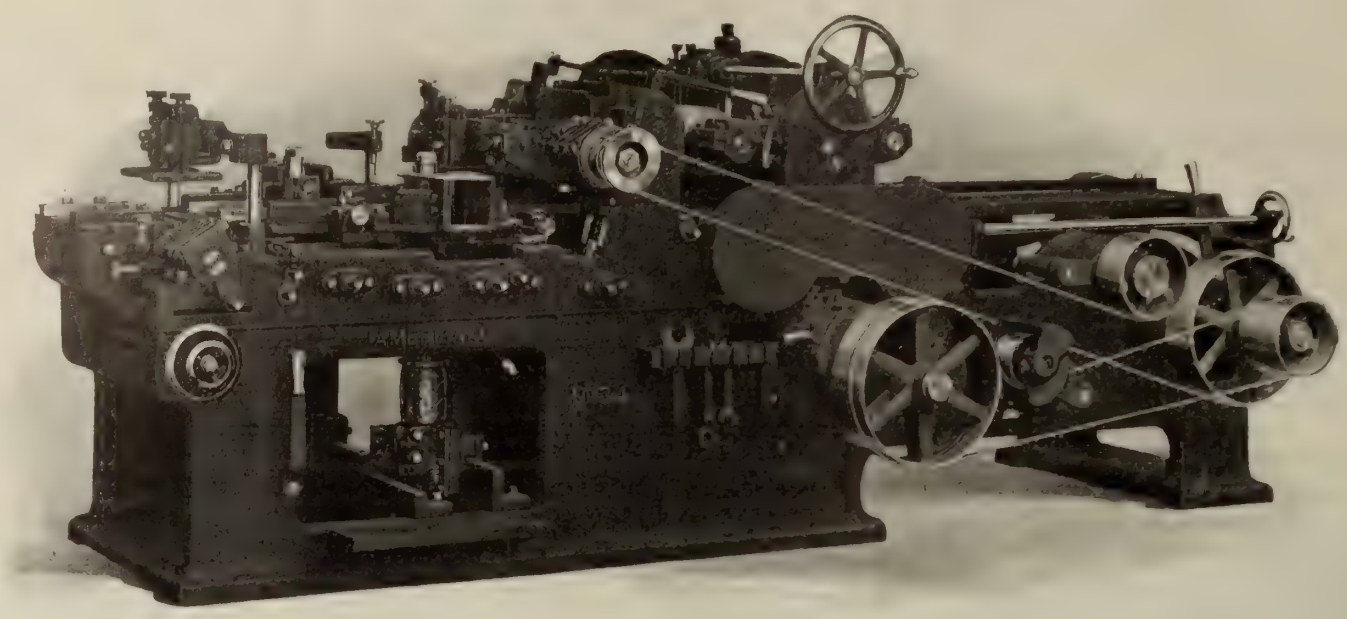
Known in every Camp from the Atlantic to the Pacific as the most satisfactory Snow Plow made.

Combination Model, Lumberman's Snow Plow, can be used either with or without Rut Cutter.

One man to operate. Adjusting wheels close together make change for light or heavy work in an instant. Wings placed to throw snow 9' wider than sleigh track or narrower if desired. Height of mouldboards prevent snow falling back on track. **Brazel Plows** cut 6" wider than logging sleighs, roll snow oustide track and away from roadway. Cut off knolls, fill up holes and leave a perfectly level road. Cut off dirt and manure from an ice road leaving a clean roadbed. Roll up and push entirely away from the road, 12" of loose snow each time the plow passes over.

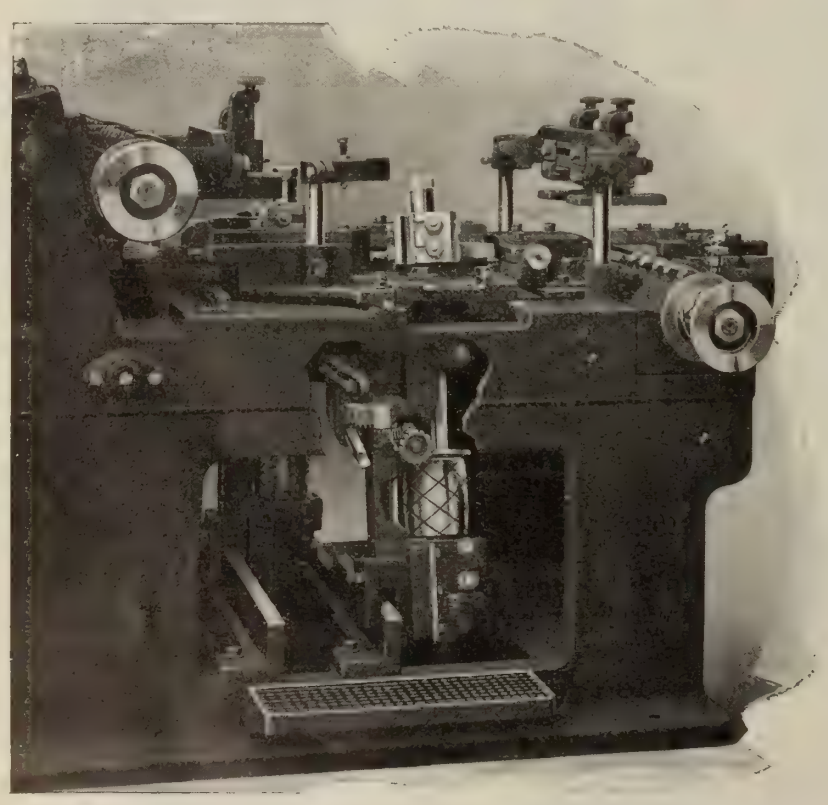
THE BATEMAN-WILKINSON CO., LIMITED Successors to THE WILKINSON PLOUGH CO., LIMITED, **TORONTO, CANADA**

Catalogue and prices on application



American *No. 34* Inside Moulder

This is a brand new machine. The general design and form of construction of the frame; the direct and simple system of gearing; the massive bed plate supporting the matcher legs; the side clamping boxes for both cutter heads and side head journals; the accurately fitted and easy adjustments throughout, are all features that make this the most up-to-date ***Inside Moulder*** on the market today.



The sectional view shows the angle adjustment of Matcher Legs, and the vertical adjustment of side spindles.

We have a handsome book which describes this machine fully. Let us send you one.

Sales Offices :
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American Wood Working Machinery Co.

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JAMES D. LACEY WOOD BEAL VICTOR THRANE

James D. Lacey & Co.

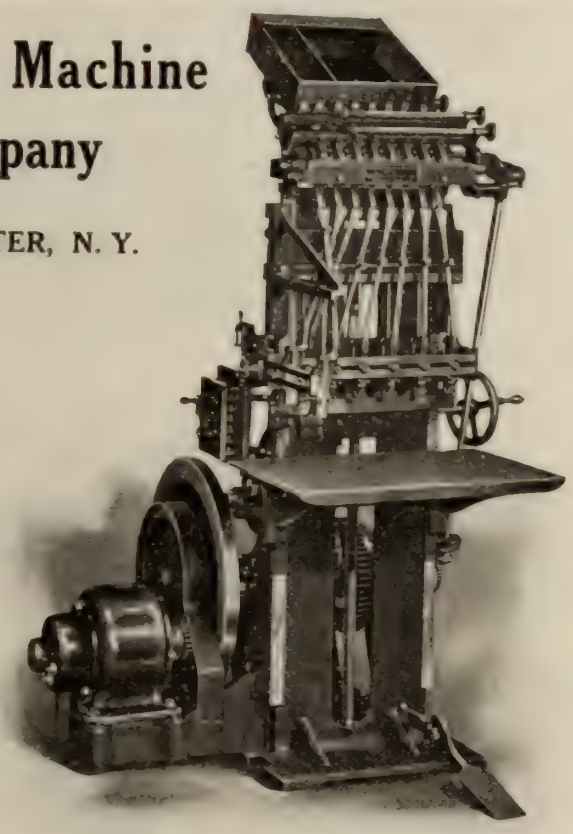
TIMBER LAND FACTORS and TIMBER VALUATORS

We submit **Detailed** estimates with **Topographical** maps of all **Timber Properties** offered through our house Representations based upon our own **Expert** cruisers and loggers, whose **Integrity** and **Experience** have been thoroughly tested over a period of many years.
We solicit correspondence with **British Columbia** timber owners and prospective purchaser

1215 Old Colony Blk. CHICAGO | **1211 Whitney Central Bldg. NEW ORLEANS** | **1104 Spalding Bldg. PORTLAND, Ore.** | **1009 White Bldg. SEATTLE**

Morgan Machine Company

ROCHESTER, N. Y.



Manufacturers of–

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.

Every manufacturer of boxes ; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N.Y.

Dolphin Waterproof Belting

is the answer for belting troubles in wet places.

Leather belting is acknowledged to be better and cheaper than any other kind of belting for wet places, providing it is waterproof and that the laps will not come apart.

Dolphin Waterproof Belting is guaranteed to meet all these requirements.

We solicit a Trial Order

Providence Belting Co.
Office and Factory : 25-39 CHARLES STREET PROVIDENCE, R. I., U. S. A.

Boss Line Lumbering Tools

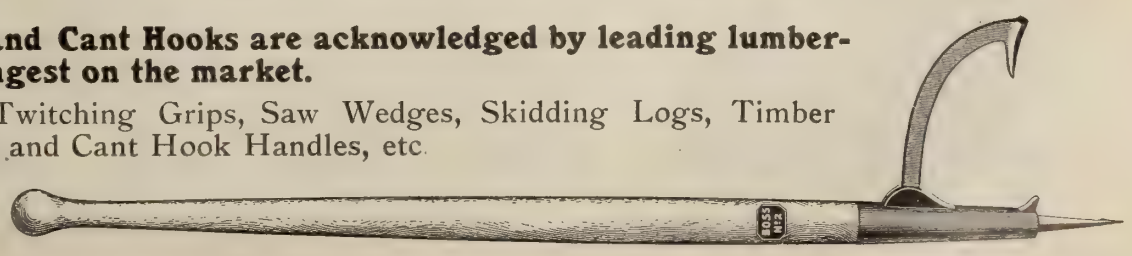
Manufactured by

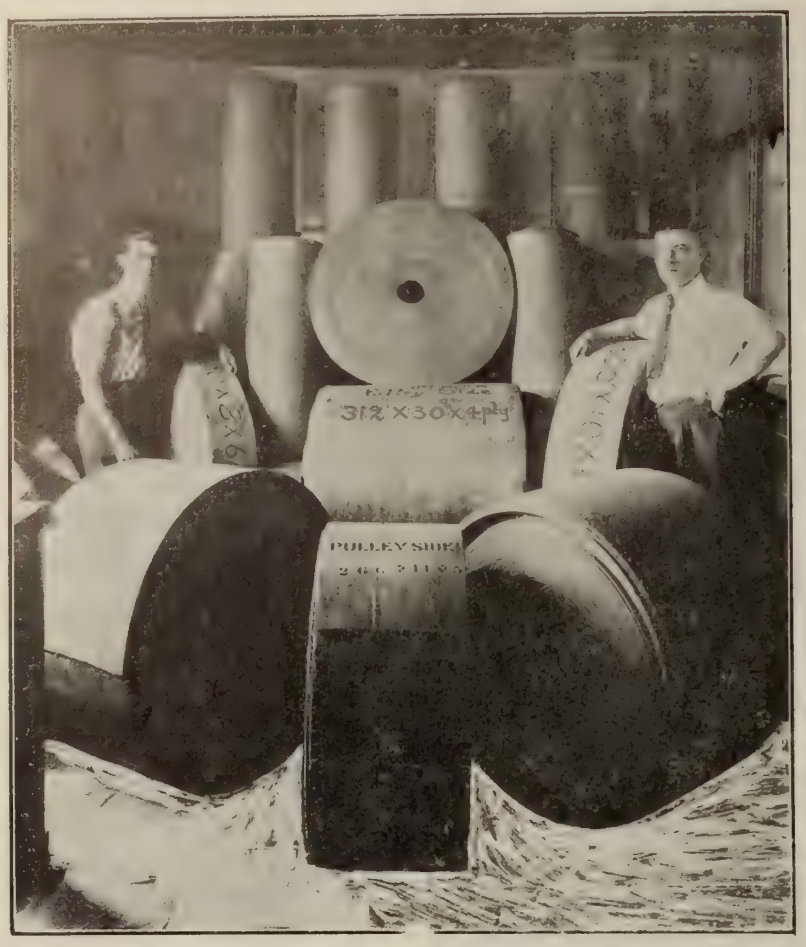
The McFarlane-Neill Mfg. Co., Ltd., St. Mary's, N. B.

Forged Steel Socket Peaveys and Cant Hooks are acknowledged by leading lumbermen to be the lightest and strongest on the market.

Try our Steel Loading Blocks, Twitching Grips, Saw Wedges, Skidding Logs, Timber Carriers, Split Rock Maple Peavey and Cant Hook Handles, etc.

Catalogues furnished and prices quoted on application





Instead of Repairing That Old Belt Buy a

VI-BALATA

Vast improvements have been made in recent years in the manufacture of Balata belting. No old belt however good or however well repaired could possibly give as much satisfaction as a new one of more recent manufacture.

VI-BALATA Belting embodies every improvement of importance that has ever been made in Balata Belting—it is the evolution of scientific experiment—the finished and perfect product of the most modern and complete process.

VI-BALATA Belting is preminently the most suitable for outdoor work or in any place where it is impossible to keep the belt dry, it is absolutely waterproof and stretchless.

Full particulars sent on request.

Quotations made for large and small work.

Send for New Catalogue

Sole Canadian Agents:

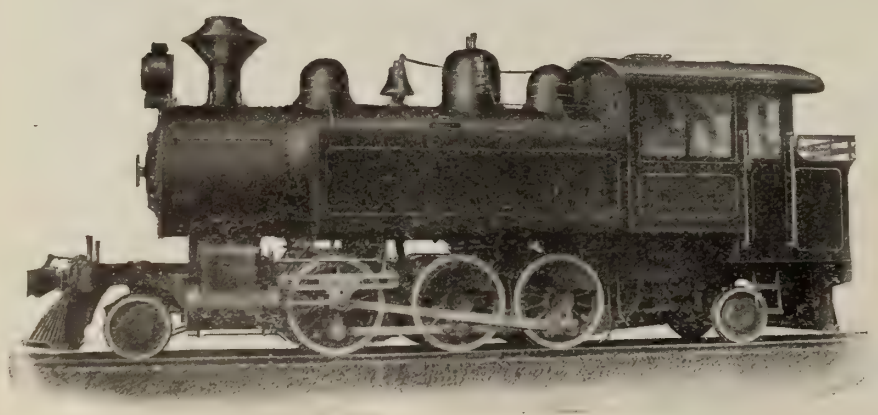
The General Supply Co. of Canada, Limited

356-58-60 Sparks Street, OTTAWA, ONTARIO

Market and Louise Sts., WINNIPEG, MAN. - - 115-125 Adelaide St. West, TORONTO

SELECTION OF LOCOMOTIVES

WHAT SHOULD BE KNOWN BEFORE YOU PURCHASE LOCOMOTIVES:—



Nature of the service.
Capacity of the cars and weight of train.
Character of track—is it new or old.
Length of haul.
Is time an important factor.
Do you want a quick locomotive or a big puller.
Distance from base of supplies and quarters for the men.
Water and coal carrying capacity.
All these items and more should be considered.
A careful study of conditions may mean larger profits.
Our experience may be valuable in considering them.
A dollar saved is more than a dollar earned.

Write or wire us, or better still, come to see us.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

Makes It's Mark Vivid and Lasting

Marks that remain vivid and wear like iron are a real satisfaction to the man who handles lumber. The metallic pigments, like graphite, of DIXON'S LUMBER CRAYONS offer marvelous resistance to all kinds of weather conditions. Their marks are often visible after six months of severe exposure to sun and storms.

DIXON'S LUMBER CRAYONS

have always remained the recognized standard because of their one, uniform and dependable quality; their convenient and uniform shape and size and because of the careful selection of materials used in their manufacture. DIXON'S LUMBER CRAYONS are made in nineteen grades and colors, including black (six grades), red (two grades), blue (two grades), green, white, yellow, brown, terra cotta, violet, pink and orange. Some are made to fill particular needs—let us tell you more about them. Get acquainted.

Write for lithographed booklet No. 239, illustrated in colors.

Joseph Dixon Crucible Company
Jersey City, U. S. A.

James W. Sewall

Mapping and Surveying of Wild Lands—Estimation of Timber and Working Plans

16 Centre Street
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HEISLER GEARED LOCOMOTIVES

Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Lake, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works
ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

Lumber Horses

We are specializing this season in an extra fine line of Lumber Horses, guaranteed to be young and sound in every particular, and of extra weight and quality.

Consignments of heavy horses received regularly from the best shippers of heavy horses in Ontario.

Clean and sanitary barns under Government Inspection.

Loading chutes at Barn Doors via all railways,

We can supply your wants on the very shortest notice.

WRITE US YOUR REQUIREMENTS

Union Stock Yards of Toronto, Limited
HORSE DEPARTMENT "The Place to Buy them Worth the Money"

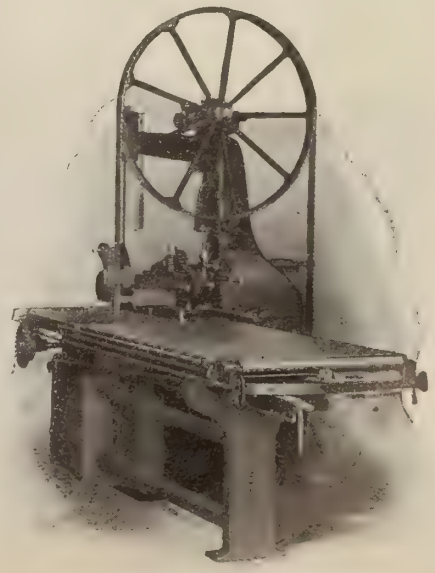
AVOID LIABILITY

Dangerous Circular Ripsaws

And risks of maiming your employees. Use our Power Feed Band Ripsaw.

a Specialty ~~Not a Side Line~~ BAND RESAWS

Wm. B. Mershon & Company
Saginaw, Michigan



Power Feed Band Ripsaw No. 1

Self Feed Rip Saw

Self Feed Gang Saw

The Stuart Machinery Co., Ltd.
WINNIPEG, MAN.
Agents for Saskatchewan, Alberta and Manitoba

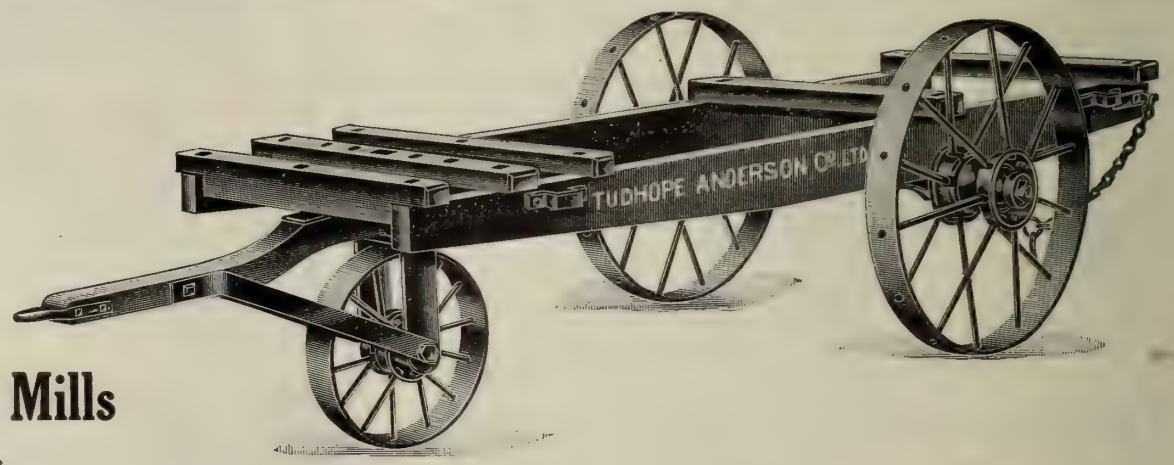
Write for catalogue. It illustrates many special Box Factory and Saw Mill machines

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.

Three Wheel Lumber Cart

with Wide Tire Steel Wheels

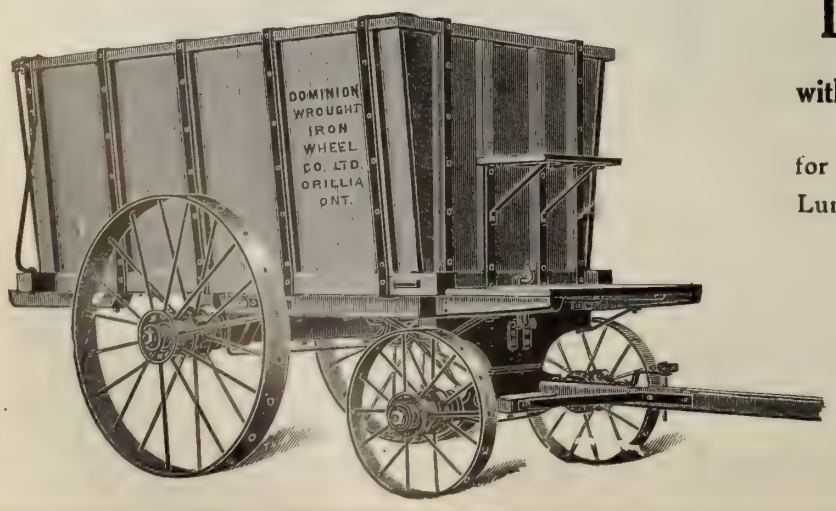
Used in trains or singly for platform work.



Dump Carts for Saw Mills

with Wide Tire Steel Wheels

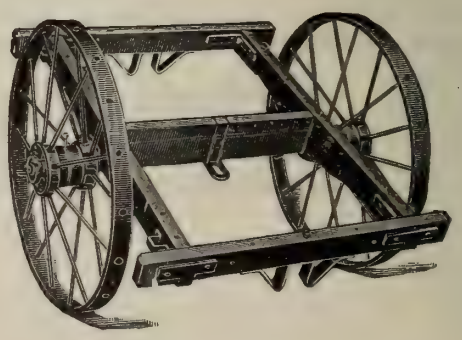
In ½, ¾ and 1 Cord Capacity—extra strong of thoroughly seasoned hardwood and bolted throughout.



Detachable Lumber Trucks

with Wide Tire Steel Wheels

for Saw Mills, Planing Mills, Lumber Yards, etc.



The Tudhope-Anderson Co., Limited
Successors to TUDHOPE-KNOX CO., LIMITED
ORILLIA - - ONT.
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Wire Rope

For Every Requirement

We are specialists in the manufacture of wire rope. We can ship from stock any length or size of the wire ropes usually supplied and can manufacture specially a rope exactly suitable for your requirements. Perhaps you are having wire rope troubles—if so—drop us a line advising us your requirements and we will be pleased to make suggestions as to the class and style of rope you should use. We have had years of experience—and should know.

The Dominion WIRE ROPE Co., Limited
MONTREAL
The General Supply Company of Canada, Ltd., Agents for Manitoba

MAPLE LEAF BELTING

Strong
Waterproof
True
Running

For
Indoor or
Outdoor
Work

¶ Maple Leaf is the most economic and efficient belting for power transmission and conveying, etc.

¶ It costs only half as much as leather and 25 per cent less than good rubber belting.

Write for sample and prices to the sole manufacturers

DOMINION BELTING CO.
HAMILTON, CANADA

RUBBER GOODS FOR LUMBERMEN

Belting—Our long experience in the making of Rubber Belts enables us to specialize on this line. "Monarch," "Red Strip" and "Lion" are our leading brands for power transmission. (Write for Booklet B-1.)

Packings—"Redstone" High Pressure Sheet Packing has proved by test that it will outlast any other similar packing on the market. We make Spiral and Ring Packings, etc., that are equally reliable. (Booklet P-1.)

Hose—for Steam, Water, etc., etc., in various grades, made especially to give satisfactory and economical service under different conditions. (Booklet H-1.)

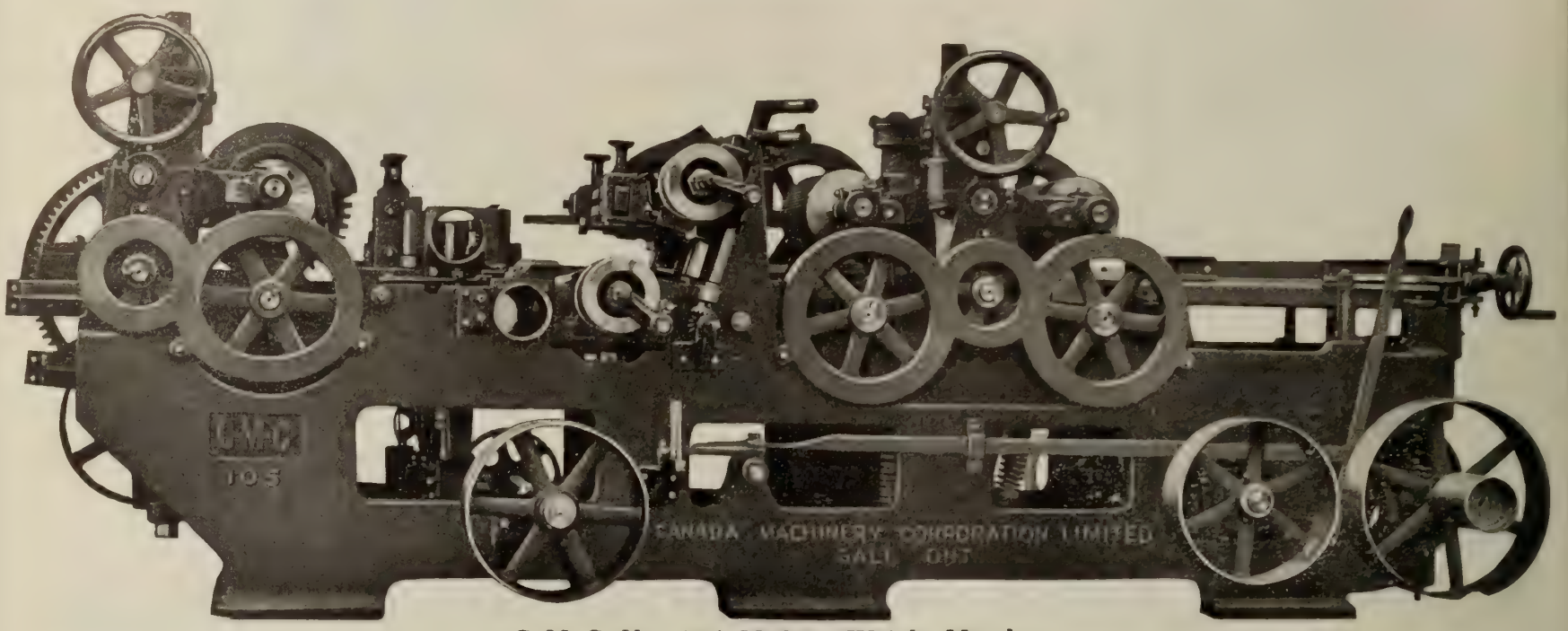
Fire Hose—One or more of our twenty brands of Fire Hose will be found, not only in the best equipped Factories, Mills, etc., but in almost every Fire Department in the Dominion. (Booklet H-1.)

The Gutta Percha & Rubber Mfg. Co. of Toronto, Limited
TORONTO MONTREAL HALIFAX WINNIPEG CALGARY VANCOUVER

No. 105 MATCHER

C.M.C.

No. 105 MATCHER



C. M. C. No. 105 Medium Weight Matcher.

Our No. 105 Matcher is not our heavy duty fast feed machine but is a high grade medium weight matcher. It is a general purpose machine and for work up to 100 feet per minute ; is without an equal.

It is supplied with five rates of feed from 45 to 100 feet per minute.

Bulletin No. 105 fully describes this machine and will be gladly sent on request.

Have you our complete catalogue? If not let us send you one.

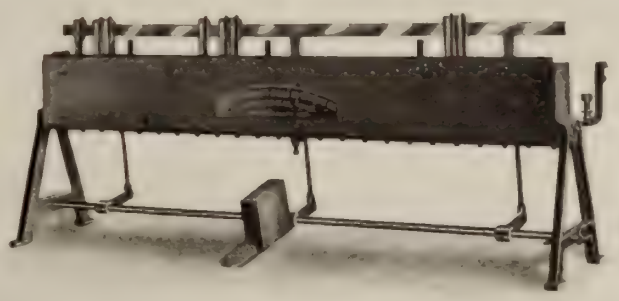
We Make the Most Complete Line of Woodworking Machinery in Canada

Canada Machinery Corporation Limited

GALT, ONTARIO

Look at the Picture!

Look at the Names!



The picture is of our stile gluer.

The names are of some of its users. Some of them have sent in duplicate and triplicate orders unsolicited. Are they the kind that would do that if the machine was not a money saver?

It Glues the Whole Stile in a Second.

Foster-Lotham Mills, Oshkosh, Wis.; Morgan Company, Oshkosh, Wis.; R. McMillen Co., Oshkosh, Wis.; Radford Bros. & Co., Oshkosh, Wis.; Curtis & Yale Co., Wausau, Wis.; Curtis Bros. & Co., Clinton, Iowa; Estate James Davidson, Ottawa, Ont.; Roach & Musser Sash and Door Co., Muscatine, Iowa; Allen Mfg. Co., Shreveport, La.; Rock Island Sash & Door Co., Rock Island, Ill.; Riverside Lumber Co., Calgary, Alta.; Rat Portage Lumber Co., Winnipeg, Man.; Cream City Sash & Door Co., Milwaukee, Wis.; Enochs Lumber & Mfg. Co., Jackson, Miss.; United Sash & Door Co., Wichita, Kans.; Hardwood Products Co., Neenah, Wis.; Vance Redwood Lumber Co., Eureka, Cal.; Chehalis Fir Door Co., Chehalis, Wash.; Farley & Loetscher Mfg. Co., Dubuque, Ia.; Robinson Mfg. Co., Everett, Wash.; Southern Mfg. Co., Gadsen, Ala.; Waco Sash & Door Co., Waco, Texas; Pacific Mfg. Co., Santa Clara, Cal.; Standard Lumber Co., Sonora, Cal.; Geo. W. Smith Co., Philadelphia, Pa.; Fox Bros. Mfg. Co., St. Louis, Mo.; Weed Lumber Co., Weed, Cal.; Cedar Creek Mill Co., Brewton, Ala.

MANUFACTURED BY

The Dauber-Bell Machine Co., Oshkosh, Wis.

Dowel Door and Chair Machinery

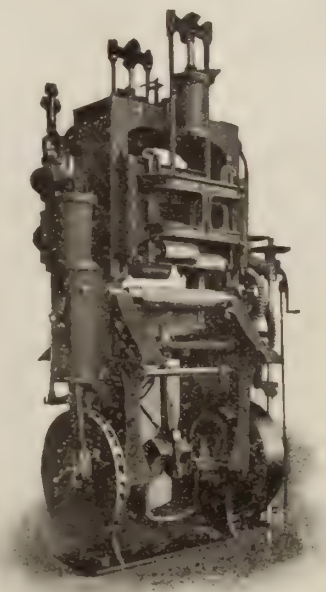
WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips **Cedar Siding** **Shiplap**
Silo Stock **Door Stock** **Box Lumber**
Boards

from cants and flitches, from either hard or soft woods.



ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES—taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install ecomony by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

Think it Over Carefully, then Write us for Details.

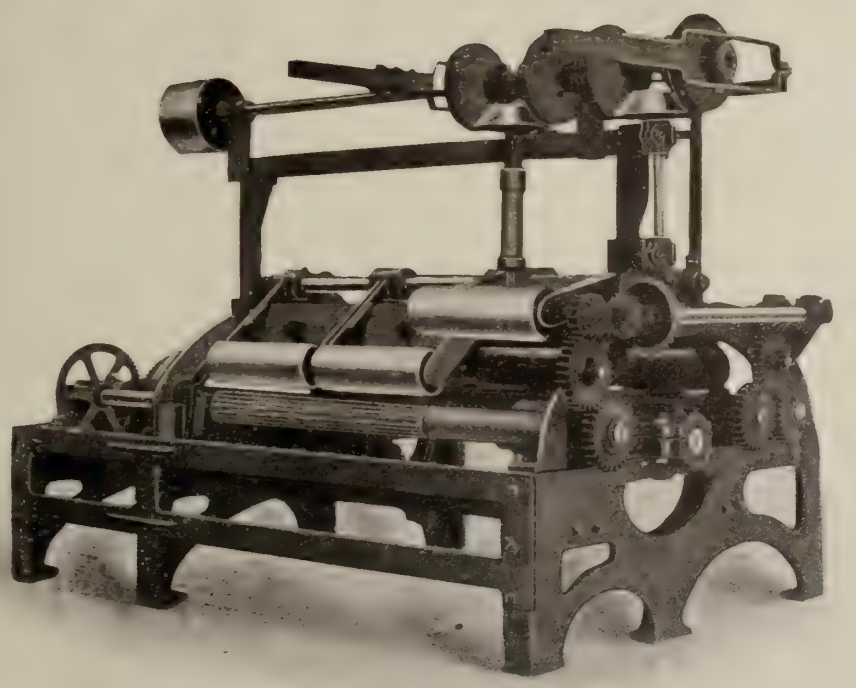
"The Gang cannot Overslab."

Wickes Brothers

410 White Building — — SEATTLE, WASH.

Head Office. Saginaw, Michigan, U. S. A.

Mowry's Jumbo Edger



Our latest model is an improvement on the one illustrated here

Mowry's "Jumbo" Combined Gang and Edger is the most useful mill machine on the market to-day.

It embodies every detail of construction essential to an adequate gang edger. ¶ We have some very flattering testimonials for our "JUMBO."

Mandrel: 4½ inches by 10 feet 6 inches long.

Drive Pulley: 20 inches, 20 inches.

Saws: 2 movable saws on edger side (more if desired) 8 stationary saws on gang side, 2 water boxes.

Let us quote you when you are in the market for Saw, Lath or Shingle Mill Machinery or Repairs.

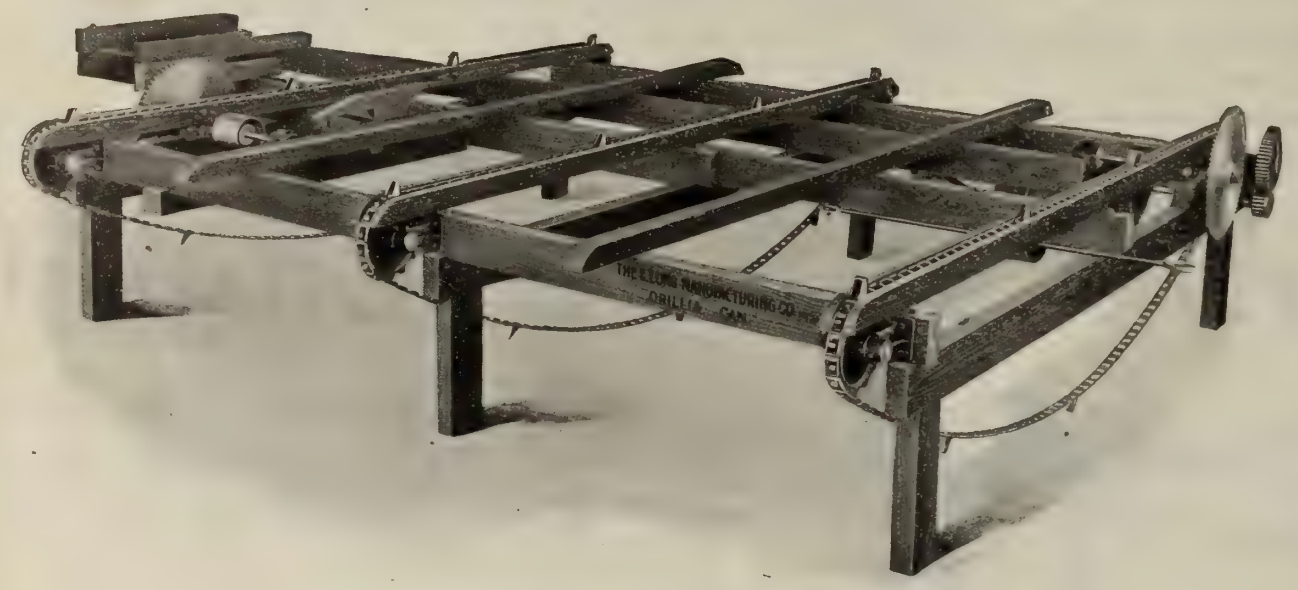
MOWRY & SONS, Gravenhurst, Ontario

The Mark of *Quality*

It will greatly increase the value of your output.

It will do a maximum amount of work with a minimum amount of power.

No. 1, Two Saw, Right Hand Trimmer



It will sell your lumber, when untrimmed lumber will not sell.

It will pay for itself in less than a season.

No. 2, Two Saw, Left Hand Trimmer

We build this style trimmer in two sizes, for Portable mills and mills of medium capacity, also automatic trimmers for mill of heavy capacity. Full information on application.

Mill Plans, Specifications and Estimates on complete mills furnished

The E. Long Manufacturing Co., Limited

Orillia, Canada

Agencies:

MONTREAL—Williams & Wilson, Ltd.
WINNIPEG—Stuart Machinery Co., Ltd.
EDMONTON and CALGARY—Gorman, Clancey & Grindley, Ltd.
VANCOUVER—Robert Hamilton & Co.

Replace that worn-out chain

"A Chain is as strong as its weakest link"

A worn-out link means a broken chain when you least expect it. In going over your mill after this season's cut you will find there are a good many feet of chain that need replacing.

We have the chain to do it right

Our line of haul-up chain includes a special type of flat and round link chain forged from the best refined wrought iron, made with 6 inch pitch and in weights from 2½ to 15 lbs. per foot. We have used it with our haul-ups and rough wood conveyors for many years and can honestly recommend it.

We also build a long link coil chain with links up to 1¾ inch diameter, which is unexcelled for a slow moving conveyor or haul-up subjected to heavy duty. A short link coil chain in size up to ¾ inch diameter used for transfer work will also give you lots of service.

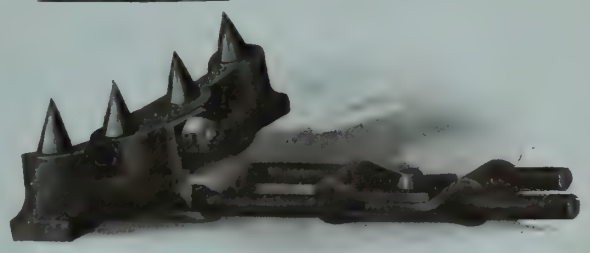
Some special higher priced forged steel and malleable chains, alligator pulpwood chain, and the well-known line of Ewart Detachable Link-Belting complete the list.

Our Chain Bulletin

just issued, illustrates these chains individually, the specials—steel, malleable and cast iron that are used with them and shows the various sprockets, idlers, spools and drums that we can supply.

Sprockets and Idlers

We build sprockets and idlers, drums and end spools to fit any style and size of chain. Our list of extensible tooth sprockets is especially complete. For nice running sprockets that are easy on the chain we can recommend our make. Supplied in weights up to 680 lbs. complete with shafts and boxes. Illustrated in Bulletin No. 108.



Sawdust Chains

Our complete line of sawdust chains comprises single and double strap and round link types. These are adapted for conveying sawdust, chips, refuse and pulp blocks and will give excellent satisfaction and long service. Supplied with sprockets and idlers, in any length. Listed in Bulletin No. 108.

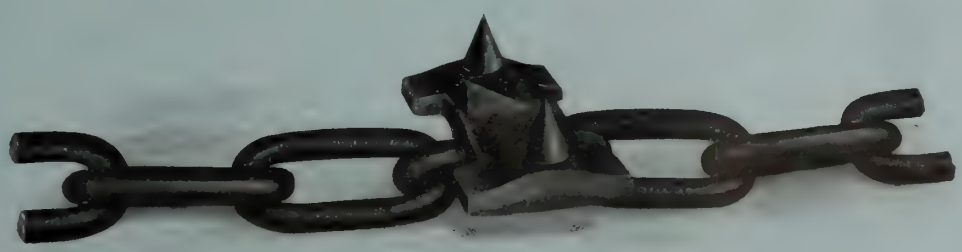
Send for it—No. 108, a postcard will do

The Waterous Engine Works Co.

Limited

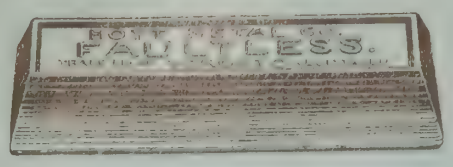
BRANTFORD, CANADA

Winnipeg, Man.
Vancouver, B.C.
Valparaiso, Chili.
Brisbane, Australia



Haul-up and Transfer Chains

Only the best materials go into these chains. We will back them for long wearing qualities. Both coil chain and the combination coil and flat chain are tested before they leave the works, as are the specials they are supplied with. Look over our types of specials shown in the Chain Bulletin No. 108.



$5,000,000.00

worth of mixed metals is what we market every year

PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.

Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

We solicit your patronage

HOYT METAL CO., Toronto, Canada

New York, N. Y. **London, England** **St. Louis, Mo.**

BATTS LIMITED

WEST TORONTO

MANUFACTURERS OF

Staved Columns
Veneered Doors
Newel Posts
Sashes - Flooring
Trim
Pine Doors and Frames
Turned Newel Posts and Balusters
Cypress Greenhouse Material

BATTS LIMITED

MANUFACTURERS

WEST TORONTO, ONT.

THE LEATHER BELT THAT'S KNOWN OUR "EXTRA"

THE J.C. McLAREN BELTING CO. OAK EXTRA TANNED EST 1856

MONTREAL TORONTO
WINNIPEG VANCOUVER

The J.C. McLaren Belting Co.
Limited

General Mill Supplies **MONTREAL**

The John Inglis Company, Limited

Engineers & Boiler Makers

"Inglis" Boilers are the Best

Write us for quotations

BOILERS

We Make

Return Tubular, Scotch Marine, Fitzgibbon, Scotch Dryback, Locomotive, Water Tube.

14 Strachan Ave. **Toronto, Canada**

Canada Lumberman & Wood Worker

Time is Money

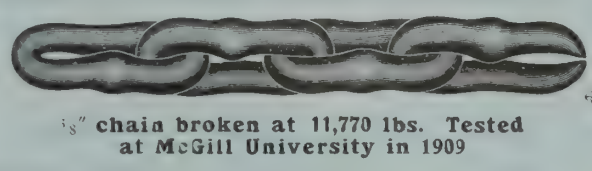
The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.



⅜" chain broken at 11,770 lbs. Tested at McGill University in 1909

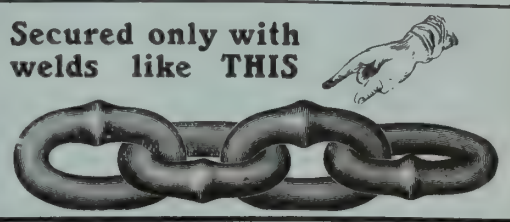
A Test Like THIS

25% More Weld = 25% More Strength = 25% More Wear

Tested Steel Chain made at St. Catharines, Ont.

Sold by McKinnon Chain Co. BUFFALO, N.Y.

Secured only with welds like THIS



NO FRAYING AT THE EDGES

Dick's Balata Belting possesses perfect uniformity throughout, whereby true and steady running is ensured, fraying at the edges rendered impossible, and perfect success in fork driving guaranteed. The combination of strength and uniformity in Dick's Belts is due to the process of solutionizing to which the textile portion of the Belting s subjected, and which thoroughly solidifies and unites the whole material.

You can get all the facts in our Catatog No. 17.

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
Steel Pulleys Saw Mill Supplies Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults

Montreal Toronto St. John, N. B. Winnipeg Calgary Vancouver

"CAMEL HAIR" "CAMEL" BRAND BELTING — TRADE MARK REG.

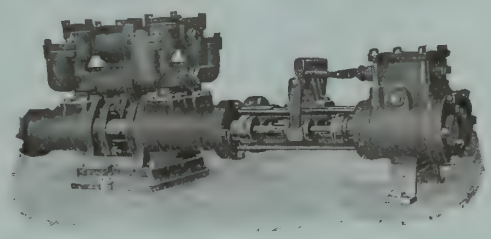
THE BELT YOU WILL EVENTUALLY USE

BECAUSE—It withstands heat, cold, damp, wet and chemical fumes.
BECAUSE—It is uniform in thickness and runs true.
BECAUSE—of its great strength, almost twice that of oak-tanned double leather.
BECAUSE—It costs no more, all things considered

F. REDDAWAY & COMPANY
Sole Makers

MONTREAL 595 St. Paul St. TORONTO 120 Adelaide St. W. VANCOUVER 847 Beatty St.

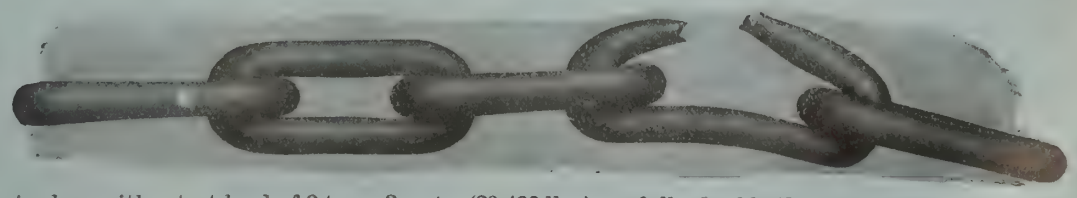
Steam and Power Pumps, Condensers, Travelling Cranes.



The Smart-Turner Machine Co., Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"



Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

Alphabetical Index to Advertisers, page 62

Fully Guaranteed Sawmill Machinery

This is the only kind for you to buy to ensure satisfactory and continuous operation throughout the entire sawing season.

All our sawmill machinery is sold on an absolute guarantee of proper operation and perfect construction.

Naturally, therefore, we buy only the highest grade materials and use only skilled workmen, and everything is built under the most careful supervision.

These things are necessary to produce well built machinery, but they would be useless without proper design—and the "know how" of designing sawmill machinery can only come after long experience.

We have such complete confidence that our machinery is correctly designed that our guarantee is:

"These machines are guaranteed against defective materials and workmanship for the period of one year, and their proper and successful operation is also absolutely guaranteed. Should any parts fail through defects, we will replace them free of charge, or should any machine not work properly, we will remove it at our expense and refund any part of the purchase money which may have been paid to us."

This guarantee goes with all our machines and we have never had to take back a standard machine yet.

And back of this guarantee is our fifty years' experience building sawmill machinery for stationary mills only.

It will pay you to buy your machinery from us this winter.

William Hamilton Co., Limited

Peterborough, Ontario

VIEW OF OUR MILL AND BOOMS

PINE LUMBER

Cut from the best pine timber in Ontario is what we have to offer our many patrons in Canada and the United States.

We don't want to dissapoint you therefore anticipate your requirements as far ahead as possible for

Norway or White Pine Lumber, Railroad and Structural Timbers, Flooring, Ceiling, Moulding, Siding, Cross-arms, etc.

Place your order now for next year's dimension stock

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Dry Lumber For Sale

View of Saw Mills, Pembroke, Ont.

White and Red Pine, Spruce, etc.

100,000 ft.	5/4 x 4/7	x 12/16	S.C.W.P.
200,000 ft.	6/4 x 4/7	x 12/16	" "
100,000 ft.	1 x 8 & up	x 12/16	" "
100,000 ft.	5/4 x 8 & up	x 12/16	" "
200,000 ft.	6/4 x 8 & up	x 12/16	" "
200,000 ft.	2 x 8 & up	x 12/16	" "

(All Box Out)

ROUGH OR DRESSED

Fast Feed Planing Mill in Connection.

Send us your enquiries

The Colonial Lumber Co., Ltd.

Pembroke, Ont.

WHITE AND RED PINE

SCENE IN THE SHIPPING YARDS

For prompt shipment we offer the following stock subject to prior sale :—

2 x 5 /up x 12/16 Red Pine
Mill Run 400,000 ft. B. M.

2 x 5 /up x 12/16 White Pine
Mill Run 300,000 ft. B. M.

1 x 12 x 12/16 White Pine
Mill Run 600,000 ft. B. M.

Write us your requirements

JOHN LUMSDEN, Lumsden's Mills, Quebec

Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office: — Pacific Building, VANCOUVER, B. C.**

Long Lumber Company

Head Office
Hamilton, Ontario

Branch Office
Traders Bank Building
Toronto, Ont.

FOR QUICK SHIPMENT

We offer the following stock subject to prior sale:

200,000 ft.	2 x 4 — 10 16	Norway Pine	
200,000 ft.	2 x 6 — 10 16	"	
200,000 ft.	4 x 4 — 10 16	"	
200,000 ft.	1 x 4 — 10 16	"	Flooring Strips

Stock all in shipping condition and on short freight rate.

Wm. Milne & Son, Ltd.

Manufacturers:

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.
Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

Spanish Mill

White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel shipment only.

Casey-Shaw Lumber Co. Limited

Sudbury, Ontario

Manufacturers of

Lumber and Lath

Planing Mill Work

SAW MILLS
Long Lake, Ont. and Blezard, Ont.

GENERAL OFFICE
Sudbury, Ont.

Oats Oats Oats

I make a specialty of Oats in bags

Get my prices before you buy

Alexander Butler

Traders Bank Building, TORONTO, ONT.

We Want Rush Orders For the Following:—

Two cars 8/4" No. 1 C. & B. Birch, 75% 1st and 2nd, very dry
One car 5/4" No. 1 C. & B. Birch, 75% 1st and 2nd, very dry
One car 6/4" No. 1 C. & B. Birch, 75% 1st and 2nd, very dry
One car 5/4" to 12/4" Selected Red Birch, choice stock

The Glengarry Lumber Co., Limited

Berlin, Ontario

JOHN GILLIES
President

DAVID GILLIES
Vice-President

J. S. GILLIES
Sec.-Treas

Established
1873

GILLIES BROS. Limited

Mills & Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

Cedar Shingles and
Railway Ties

RED PINE, SPRUCE, HEMLOCK, CEDAR

Planing Mill, Yard & Office
MORRISTOWN, N.Y.

CAPACITY 40,000,000

New York City
Guy E. Robinson, 1123 Broadway

The

Georgian Bay Lumber Co.

Limited

Waubaushene, Ontario

Manufacturers of High Grade

Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

White Pine
Red Pine
Spruce
Lumber and Lath

Office, Castle Building 53 Queen St. Ottawa, Can.

F. N. Waldie, President. R. S. Waldie, Vice-President. W. E. Harper, Secretary.

The
Victoria Harbor Lumber Company
Limited

Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont. Head Office, 12-14 Wellington Street East, TORONTO, ONT.

I Told You So!!

This is the worn out song you will hear next spring if you do not provide NOW for your early spring requirements in

Hemlock and Spruce

We have a large stock of good Cull Hemlock and Cull Spruce to dispose of from 1″ to 3″ thick.

Norway Pine
Cedar Shingles
Spruce Lath

We can also fill orders, in any quantity, of **White Pine**—the finest well-watered stock obtainable. Always ready for shipment. We can dress or resaw.

Write for prices, etc.

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 1200 Claremont Ave., MONTCLAIR, N.J.

Hope Chambers, OTTAWA, CAN., Head Office

Timber Limits for Sale
on Georgian Bay

The undersigned offer for sale in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; Tug Scow and other Lumber Equipment, including boom chains, plows, sleighs, etc.

The Limits, part of which have recently been sold, include: 440 square miles of licensed and deeded Pine, Hemlock, Spruce, Birch and other timber. The licenses from the Ontario Government include all timbers and are not restricted for time. Government dues are as follows: Saw Logs, White Pine, $1.50 per M. ft., B.M. Saw Logs, Hemlock, Tamarac and other woods 75c. per M. ft. The timber is situated in the Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street. The Canadian Pacific, Canadian Northern and Grand Trunk Railways run through the limits, which makes some of the parcels offered for sale particularly desirable for small mill owners.

A circular giving full information, maps, terms and conditions of sale will be furnished upon application to

The Parry Sound Lumber Co., Limited

1315-20 Traders Bank Building, TORONTO, CANADA

Quincy Adams Lumber Co., Limited

MANUFACTURERS AND WHOLESALERS OF

White Pine, Birch, Spruce and Hemlock

Mills at
LONGFORD
KOSHEE
RAVENSWORTH

Special Price on Dry 4/4 and 5/4 good Pine Strips and Sides, also 5 cars 6/4 Birch, Common and Better, 18" XX White Pine Shingles.

Toronto, Canada
51 Yonge Street

The Rideau Lumber Co., Limited

Trafalgar Building, Ottawa, Ont.

We have—of 1911 sawing:

A few cars each—5/4", 6/4", 8/4" & S. C. Strips 12 16
Shorts 4" and up—6/11—Sidings 7" and up—12/16
1 x 6 and 1 x 7—12/16 Small Log Well Run
1 x 6—12/16 Shipping Cull
2/3 cars each 2 x 5" and up Merchantable Tamarac

JAS. PLAYFAIR D. L. WHITE

PLAYFAIR & WHITE

Manufacturers and
Wholesale Dealers

Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

Knowles & O'Neill

WHOLESALE

Lumber, Ties, Pulpwood

Etc.

COMPLETE STOCK OF
Quebec Spruce and Pine Lumber
ALWAYS ON HAND

An exceptionally nice lot of 2" Pine, well seasoned, for sale, also 1", 2", 3" Spruce, Square and Waney Spruce and Cedar.

Correspondence Solicited. Room 4, Hochelaga Bank Building **Quebec, Que.**

The Golden Lake Lumber Co.

Limited

MANUFACTURERS OF

Lumber, Lath and Shingles

Offer for Prompt Shipment

100,000 ft. 2 x 4 and up 6/11 ft. C. & B White Pine 70% 10/11 ft.
65,000 " 2 x 4 x 12/16 ft. C. & B. White Pine
20,000 " 2 x 4 x 12/16 " " "
Also 6/4 x 4/7 x 12/16 ft. Selected M.R. White Pine
6/4 x 8 x 12/16 " " " "
6/4 x 10 x 12/16 " " " "
6/4 x 12 x 12/16 " " " "
65,000 ft. 8 x 8 x 8/16 ft. Cedar

All of above, shipment G. T. R. from Golden Lake, Ontario

Head Office: - EGANVILLE, ONT.

THE trend of trade is now towards our **CUTLER** Mills, when customers want anything at **BAY** ports for water or rail delivery, and our **LUMBER** is selling itself by repeat orders from any **COMPANY** to whom we make a shipment. Our stock is **LIMITED** but we still have a goodly quantity to dispose of at prices worth while considering.

DON'T BUY TILL
YOU GET OUR
PRICES

The Eyer Lumber Co.

34 Victoria Street, Toronto
are Selling Agents

Cameron & Co, Limited

Manufacturers and Wholesale Dealers

LUMBER, LATH, SHINGLES, TIMBER, POLES and POSTS

We have to offer 1912 cut

1″ and 2″ White Pine Box and Better
1″ " " Mill Culls
1″ " " "O" Culls

Mill and Yard
OPEONGO, ONT.

Head Office
OTTAWA, ONT.

Send your enquiries to our Head Office

The McLennan Lumber Co., Limited

Everything in Lumber
Rough and Dressed
Wholesale and Retail

WRITE US FOR PARTICULARS

21 Dorchester Street West, MONTREAL, QUE.

The Hurdman Lumber Co.

OTTAWA, CANADA Limited

EASTERN

Pine, Spruce, Hemlock, Hardwoods, Timber, Lath and Shingles

WESTERN

British Columbia Timber

at Lowest Prices and any Sizes.

We are open to BUY cuts of Pine; Spruce; Hemlock; Basswood and Ash; and will be pleased to hear from manufacturers having anything to dispose of for cash, will also make contracts now for Basswood to be taken out this winter.

Pine, Spruce, Hemlock, Basswood, Lath

INQUIRE OF

C. A. SPENCER

Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles

Eastern Townships Bank Building, MONTREAL, Quebec

Toronto Representative: A. T. Dadson, 42 Duggan Ave.

Williams Lumber Company

Wholesale Dealers in

White and Red Pine, Spruce and Lath
ROUGH OR DRESSED

For 5/4 x 4/7 x 12 16 fine dressing strips
6/4 do. do. do.
8/4 do. do. do.
write us before placing your orders.

18 CENTRAL CHAMBERS - OTTAWA, ONT.

Edward Hines Lumber Co.

(Branch Office)

Parry Sound, Ont.

All grades of

WHITE PINE

and

Norway Dimension Bill Stuffs

WHITE and RED PINE LATH

WILLIAM H. BROMLEY

Wholesale Lumber

Pembroke, Ontario and Midland, Ont.

I wish to move promptly:

1,00,000 ft. 5/4 x 4 and up-10/16 ft. Mill Run White Pine "Good and Shop Out," Ex. Collingwood, Ont. Satisfactory price will be quoted. Inquiries solicited. All other sizes of White Pine to offer.

Head Office: Pembroke, Ontario

ESTABLISHED 1855

THE McGIBBON LUMBER CO.

OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

Hemlock Billstuff a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

JOHN McKERGOW, President — W. K. GRAFFTEY, Managing-Director

The Montreal Lumber Co. Limited

Wholesale Lumber

Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W

WHOLESALE DEALERS

SPRUCE

13 Foot and 16 Foot

Lath and White Cedar Shingles

CHRISTY-MOIR CO.

149 Broadway, New York City

THE

Brockville Lumber Company

LIMITED

Brockville, Ont.

Morristown, N.Y.

Wholesale and Retail

Lumber, Lath, Shingles, Bill Stuff

And all kinds of SASH FACTORY and PLANING MILL GOODS.

McLennan Timber Lands and Lumber Co.

Limited

Selling Agency and Dealers in all kinds of

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Offices: Gazetteville, N.Y.
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RAILS For Tramways, Sidings, Etc. New and Second Hand

YARD LOCOMOTIVES

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58 Front St. W., TORONTO

Hardwood Flooring

The Celebrated Diamond Brand

End Matched, Bored, Polished and Bundled

Manufactured by

SIEMON BROS., LTD.

For prices write

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Selling Agent for Ontario and Quebec

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Pine Doors

That Are Right

Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

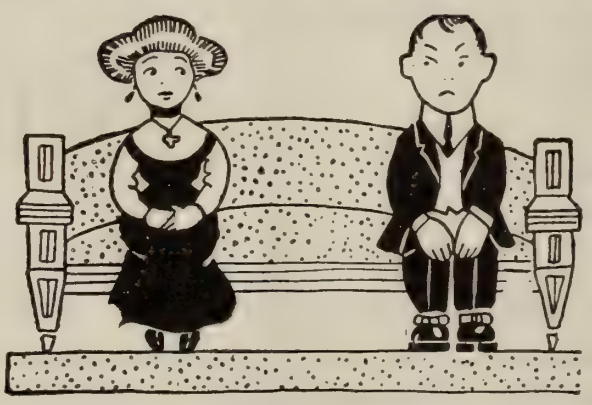
No. 3 Pine Doors

THE

Pembroke Lumber Co.

Pembroke, Ontario

Don't Hesitate



You know the old proverb "He who hesitates is lost"—Well, of course, we know that that is contradicted by the just as old proverb "Look before you leap"—The logical conclusion therefore is—"you can't do both." But that is just the trouble with many business men. They take a good look and then they hesitate. There is no need to hesitate in deciding where to purchase

Hemlock, Pine and Hardwood

You are quite safe in coming to us—we will give you the best on the market at the right price.

Write us for quotations—take a good look at our proposition then send us your order at once. Don't Hesitate.

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

We want to buy the following stocks: **Maple, Birch, Beech, S. & R. Elm, Basswood, Hemlock** and **Spruce.** For such we will pay good prices. Let us know what you have to offer.

We have for sale: **Birch**, 1" to 3", 200,000 ft., **Maple**, 1" to 1½, 150,000 ft., **Soft Elm**, 3", 30,000 ft.

Send us your enquiry. We will be pleased to quote you Close Prices.

The Meaford Lumber Company

TORONTO

Toronto Office, 539 Lansdowne Avenue.

The

North Channel Lumber Co.

Limited

Successors to

SAGINAW LUMBER & SALT CO.

MANUFACTURERS OF

Pine Lumber

Saginaw, Mich. U.S.A.

Mills at Thessalon Ont.

WE Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

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QUEBEC

HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.

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The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

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R. LAIDLAW LUMBER CO.

LIMITED

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Sarnia

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GEO. I. McCLURE
Wholesale Hardwood Lumber
CYPRESS and SOUTHERN PINE
Specialties
MAHOGANY. WALNUT and CHERRY
Maple. Birch and Oak Flooring
Veneered Doors, Stiles and Rails

Can ship direct from Mills or from Detroit. I want to buy Birch. Maple. Basswood. and Elm.

Office. Yards and Warehouse
CLARK. PLUMER AVES. AND M. C. R. R.
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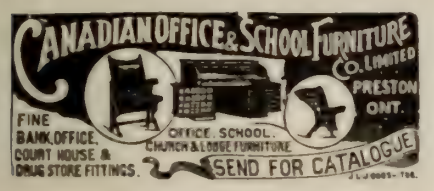
CANADIAN OFFICE & SCHOOL FURNITURE
CO. LIMITED
PRESTON ONT.
FINE BANK OFFICE COURT HOUSE & DRUG STORE FITTINGS.
OFFICE. SCHOOL. CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

PREMIER X X and X X X
RED CEDAR SHINGLES
Grade Guaranteed

YELLOW PINE
Smoke and Steam Dry Finishing
We can ship promptly
SOUTHERN PINE TIMBERS

MILLS PRODUCTS CO.
DETROIT, MICH.

Saw Mill Help

Competent employees for saw mills and woodworking plants are scarce. The best of them read this paper regularly. To get in touch with good men send a "Want Ad" to the

Canada Lumberman and Woodworker
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SPECIALTIES
Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie

Pine and Hardwood
Lumber
Lath and Shingles

North Tonawanda, N. Y.

"Well Bought is Half Sold"

SPECIAL STOCK OFFER

5 Cars	1" M. R.	Red Pine
5 "	1" C. & C. F.	"
3 "	6 4 "	"
1 Car	2" "	"
4 Cars	2 x 6 8-18	"
2 "	2 x 10-18'	"
2 "	1 x 8"	No. 1 Spruce
½ Car	1 x 10 12"	" "
½ "	5 4 x 8" Sel. M. R.	W. Pine
½ "	2 x 8 " "	"

Above all in shipping condition F.O.B. Midland.

Let us have the pleasure of quoting.

Graves, Bigwood & Co.

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Pine and Hemlock Lumber

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Mills: Byng Inlet, Ont.

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Please Offer Stocks on hand.
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Saddle Tank Locomotives
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All Secondhand
Correspondence solicited
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TORONTO WHOLESALERS

Full Stock Dry Red and White Pine and Hemlock

Bills in Hemlock and Pine
cut to order at our winter mill
6x6 to 12x14. 10 ft. and up hemlock timbers in stock

The Fesserton Timber Co., Limited

15 Toronto St., TORONTO
PHONE ADELAIDE 1783 **Mills at FESSERTON, ONT.**

JOHN DONOGH & CO.

Wholesale Dealers

Have HEMLOCK and SPRUCE for sale

Full stock in all grades and sizes

B.C. Cedar Shingles - N.B. Cedar Shingles

—WRITE US—

1205 TRADERS BANK BUILDING, TORONTO

B.C. RED CEDAR SHINGLES

Quality guaranteed. We are handling only the finest quality of well manufactured Shingles.
Quick Delivery. Keeping a number of Cars in transit at all times we are able to give almost immediate delivery
You Want Good Shingles delivered promptly.
We Want Your orders which will receive our careful and prompt attention.

WRITE, WIRE OR TELEPHONE

C. A. Larkin Lumber Co., Limited

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Do You Want a Salesman?

¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

W. T. EAGEN

WHOLESALE DEALER

Complete stock **White Pine, Norway** and **Spruce,** all sizes, for immediate shipment.

Georgia Pine finish and dimension timbers in transit at all times.

Canadian and American Hardwoods

For prices on your requirements in all kinds of lumber write

203-4 McKinnon Bldg., TORONTO

Office Telephone Main 6316. Night Calls—College 1880.

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Manufacturers and Wholesale Dealers
in

Hardwood, Hemlock and Pine Lumber

We are in a position to furnish bill timbers in White or Red Pine to be cut during the present winter.

Let us quote on your requirements.

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The

Elgie & Jarvis Lumber Co.

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18 Toronto Street, Toronto, Ont.

We are in the market for

Stocks of

Hemlock Lumber

SPECIAL VALUE

5 x 5 to 8 x 8 Qt. Cut Maple Squares
4/4" to 16/4—Maple
4/4 to 16/4 Elm (Soft)
4/4 Com. and Betr. Basswood
6/4 x 8" up 1st and 2nd Basswood
White Pine 1911 Cut
Hemlock for 1913 delivery

Write us

C. G. ANDERSON LUMBER CO.

Manning Chambers, TORONTO

Dependable Quality . . . **The Path of Prosperity** *Reliable Service . . .*

Pine
Hemlock
Spruce
Hard-woods
Rough and Dressed

We make a Specialty of Long Timbers

Fassett Lumber Co.—View of Mill

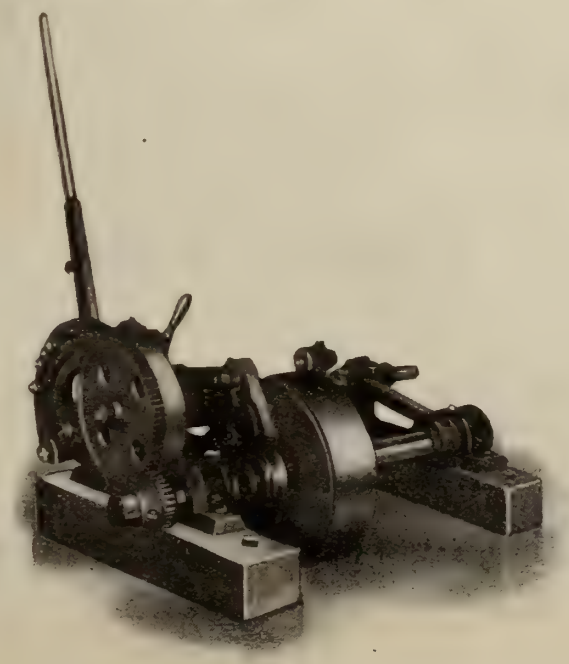
We have complete stock of well seasoned lumber for general yard trade and prepared to make prompt shipments to any market

Fassett Lumber Company, Limited

FASSETT, QUEBEC

The Importance of Efficient Mill Machinery

In Millwork, where every portion of the equipment has to undergo the severest treatment with unusually hard conditions only the best machinery will serve. No mill can be run at a profit with inferior equipment. This is an expression of the opinion of men of wide and varied experience in the business.



P. Payette's Improved Mill Machinery, is built to stand all the strain and hard usage of mill work. This machinery is of the special Payette design and embodies many improvements, which add considerably to the efficiency of mill equipment.

The New Patent Saw Mill Dog which operates in soft or hardwood timber of any kind will do good even work in summer or winter with perfect safety.

Payette's Improved Set Works will set even thickness of lumber in all class of timber and will set any size log with perfect ease, Can be changed instantly so as to make either thick or thin lumber and can be put on any make of carriage.

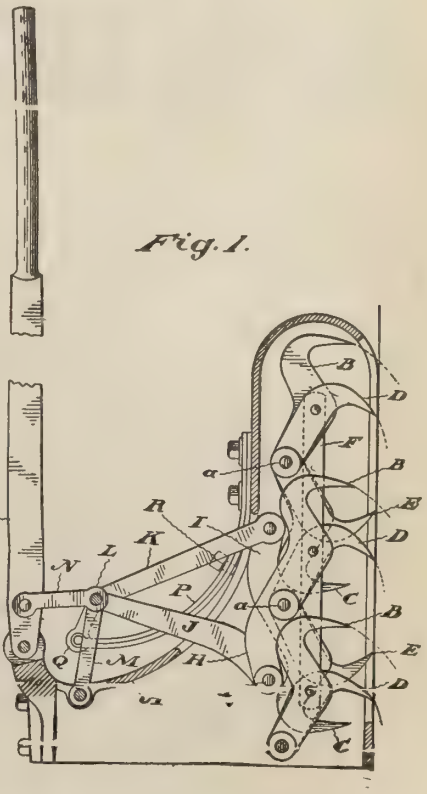


Fig. 1.

We want to prove to you the advantage of this set works in your mill and we are prepared to demonstrate its efficiency and superiority. Full information sent on application. Ask for our booklet on set works.

P. Payette & Co. Engineers & Machinists **Penetanguishene, Ont.**

HARDWOOD FLOORING

¶ We can ship from stock any quantity of Birch, Maple or Oak Flooring on shortest notice.

¶ This flooring is the best that the most modern and up-to-date machinery and skilled workmen can produce from selected woods. It is as near perfect as possible and we can guarantee every foot of it.

¶ We are also manufacturers of Hemlock, Spruce, Pine Dimension, Timber, Lath and Shingles, Interior finish of all kinds, Sash and Doors, Box Shooks, etc., all manufactured in modern and up-to-date mill and with an equipment that can supply your needs on the very shortest notice.

DRESSED LUMBER OUR SPECIALTY

Write, wire or 'phone us for prices before placing your orders.

W. C. Edwards & Co., Limited

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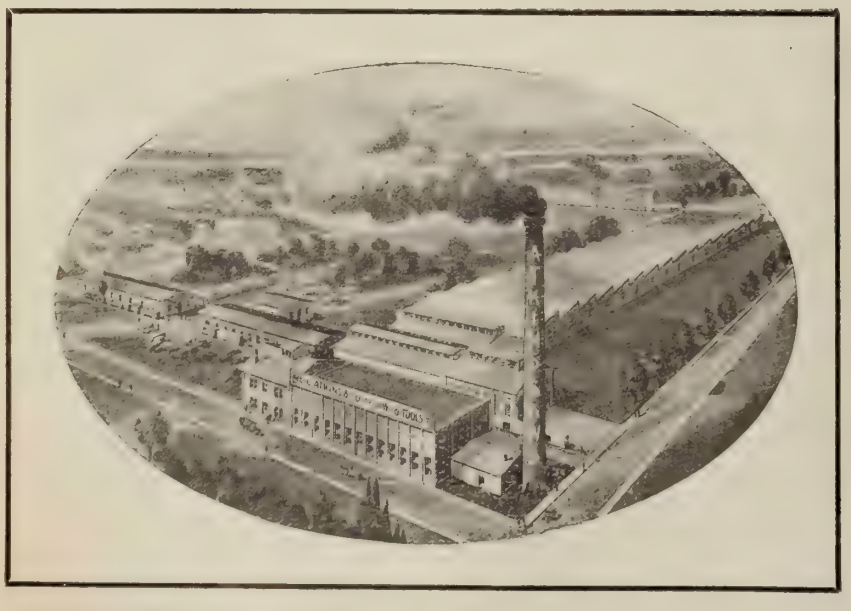
Mills at Ottawa and Rockland **Planing Mills and Factories at Ottawa**

"EVERYTHING IN LUMBER"

ATKINS STERLING SAWS

Made in Canada



Band,

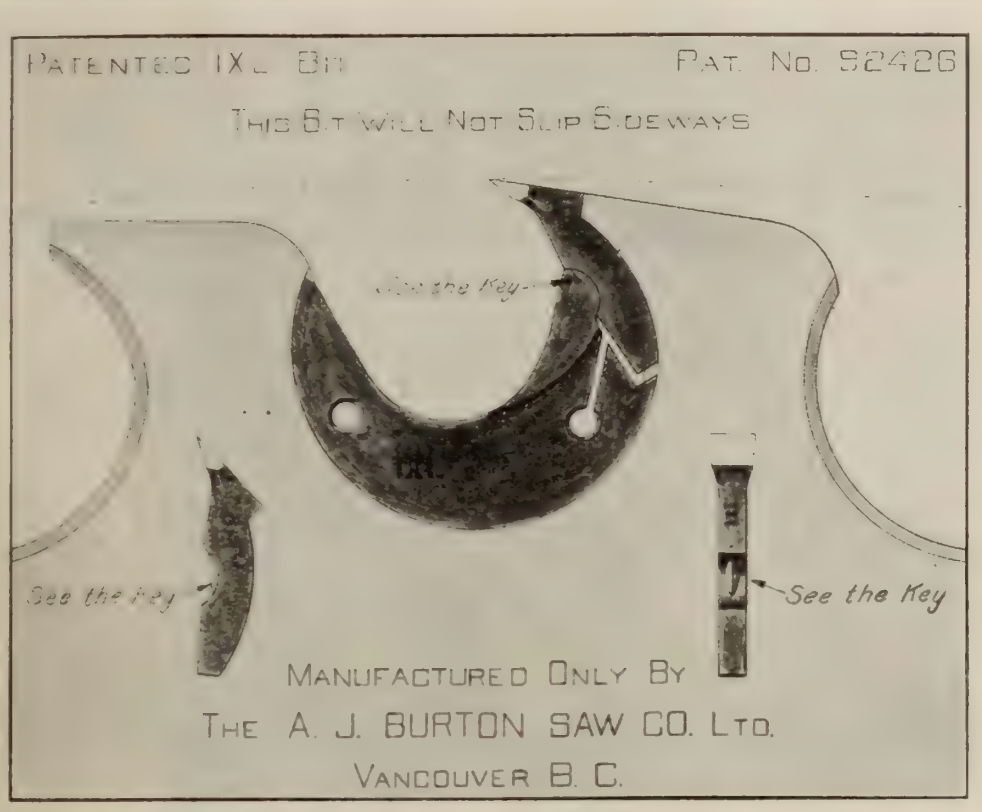
Circular,

Cross Cut

A Perfect Saw for Every Purpose

E. C. ATKINS & CO., Makers of STERLING SAWS Factory, HAMILTON, ONT.

Vancouver Branch, 109 Powell Street



Our Inserted Saws are Fitted with our Patent I.X.L. Bits and Shanks, warranted not to slip sideways, and to cut free and easy, and have no equal in hardwood or any other timber.

Saws Band, Gang, Solid and Inserted Tooth Circulars, Bits and Shanks

Carried in Stock at our Ottawa Branch. Special Attention given to all Saw Repair Work.

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Phone 1748

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GARLOCK PACKINGS

Garlock Regular Rings

For all general purposes outside of high pressure work. This Packing is a special grade thoroughly lubricated with the celebrated "Garlock" compound, and is the perfected result of over thirty years experience in manufacturing fibrous Packings.

Garlock Square Duck Packing

Made of good quality Cotton Duck and friction for cold water.

Garlock High Pressure Gaskets

Absolutely heat proof, will not vulcanize or blow out under any steam pressure, being made of long fibre Asbestos Brass Wire Insertion.

Garlock Red Sheet Packing

Made of high grade Rubber compounded in such a way as to give it great strength and reliability.

This Packing has established wide reputation on its own merits.

Garlock Cloth Insertion Sheet

Used on cold and warm water pipes. Is unexcelled in pliability, smoothness of finish and strength of Cloth Insertion.

Garlock Rubber Valves

Specially made to meet specific conditions—absolutely unaffected by oils.

Before placing your next order for supplies get our prices on Leather, Rubber and Canvas Belts, Hose, Brass Valves, Babbitt Metals, Saw Blades, Files, Emery Wheels, etc. Write for catalogue.

THE GARLOCK PACKING CO.

Head Office and Factory: HAMILTON, ONT.

MONTREAL **TORONTO** **WINNIPEG**

MARITIME PROVINCES

Maritime Lumber Co.
Limited

Head Office: Saint John, N. B.
Branch Office: 180 St. James St. Montreal, P. Q

OFFER FOR IMMEDIATE SHIPMENT THE FOLLOWING WHITE PINE

500,000 ft. 1 x 6 to 1 x 12 White Pine
1sts, 2nds and 3rds

500,000 ft. 1½ x 7 to 1½ x 12 "
1sts, 2nds and 3rds

500,000 ft. 2 x 7 to 2 x 12 "
1sts, 2nds and 3rds

500,000 ft. 3 x 7 to 3 x 12 "
1sts, 2nds and 3rds

300,000 ft. 3 x 4, 5 and 6 "
1sts, 2nds and 3rds

The above Pine is last year's cut, 1st, 2nd and 3rd Quality

Donald Fraser & Sons, Limited
CABANO, QUEBEC

MANUFACTURERS OF

Long Lumber
Rough and Finished

Shingles, Clapboard,
etc.

FOR SALE

100 M. Miramichi 4th., Pine, 3 x 7 and up, 10′ and up
200 M. 6″ x 2″ Spruce, 10′ and up
50 M. 5″ x 2″ Spruce, mixed
100 M. 2 x 4 and up Spruce, mixed
300 M. 3″ x 7″ and up "
300 M. 1″ x 4″ and up 6′ and up
Log Run Pine, narrow, averaging about 6″

The J. B. Snowball Co. Limited
Chatham, New Brunswick, Canada

We Offer—Several Cars

"CLEAR WHITE" CEDAR SHINGLES

At Special Price For Shipment to

POINTS NORTH AND WEST OF TORONTO

Dalhousie Lumber Co., Limited
Dalhousie, New Brunswick

Agents for Ontario R. Laidlaw Lumber Co., Limited
Toronto

Selling Mill Stock

If you desire to get beyond the retail dealer and reach the builder and the architect it will pay you to advertise in the

Contract Record
and Engineering Review

the only weekly paper in Canada for builders, architects, etc.

Send for sample copies and rates to the publishers

Hugh C. MacLean, Limited
Toronto, Ontario

General view of one of our lumber yards showing piling facilities at Bathurst, New Brunswick

Do your customers come back? If not, bring them back with

New Brunswick Spruce

No other wood lasts longer or gives better service.

Stock Now Ready for Shipment

Clear and No. 1 Spruce

100M 1¼x4″ and up, wide run
200M Scant 2x4″ and up, wide run

Merchantable Spruce

250M 5/8x4″ and up bone dry
250M 1x5″ and up bone dry
500M 1¼x6″ 10 ft. and up
500M 1¼x8″ " "
100M 1x8″ " "
500M Scant 2x5″ " "
500M Scant 2x6″ " "
200M 2x8″ " "
200M 3x6″ " "
200M 3x8″ " "

No. 3 Barn and Better Pine

200M 1x4″ and 5″ 10 ft and up
200M 1x6″ " "
200M 1x7″ and up " "
250M 1x8″ " "
100M 1¼x4 to 6″ " "
300M 1¼x7″ and up " "
150M 1½x4 to 6″ " "
500M 1½x7″ and up " "

3x6″ and up 10 ft. and up Pine

350M 3rds and Better, Bone Dry

Cedar Squares

25,000 ft. 5x5″, 10 ft. and up
25,000 ft. 6x6″, 10 ft. and up

Tell us your needs and we will see that you are supplied. All stock shipped in rough only.

SPRUCE, PINE AND HARDWOODS

Bathurst Lumber Company, Limited

BATHURST, N. B.

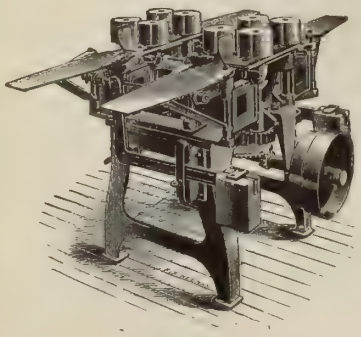
B. G. Luther Co., Inc.

91 Foster Street,

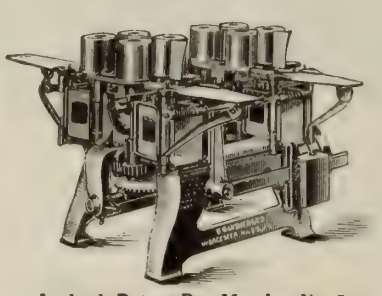
Worcester, Mass.

—— *Manufacturers of* ——

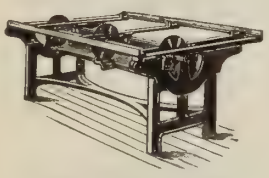
Wood Working
—— and ——
Box Makers' Machinery



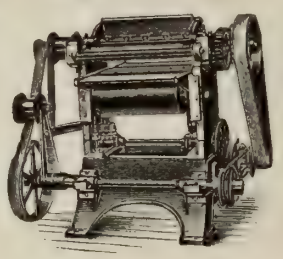
Luther's Patent Box Matcher No. 1



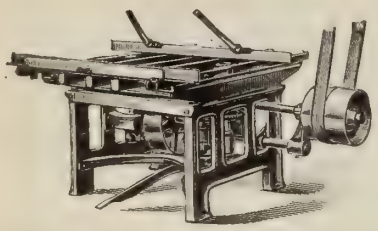
Luther's Patent Box Matcher No. 2



Luther's Patent Double Cut-Off Saw

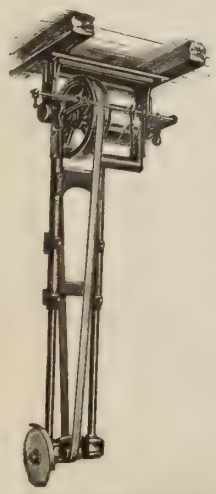


Luther's Patent Pony Planer



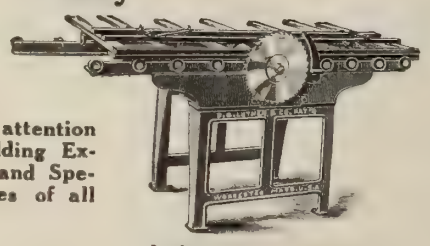
Luther's Patent Power Press for Box Shooks

Luther's Patent Glue Attachment



Luther's Patent Swing Cut-Off Saw

Patent Self-Oiling Pulley



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Particular attention paid to building Experimental and Special Machines of all kinds

WE BUILD A FULL LINE OF BOX MACHINERY

Write to-day for full particulars

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3400 North Hall Street — ST. LOUIS, MISSOURI

Band Mills - Belzoni, Mississippi

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Southern Hardwoods

Our Specialties:

Red Gum
Sap Gum
Quartered White Oak
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Plain Sawed Oak

Have a good stock in St. Louis from where we can make prompt shipment of either straight or mixed cars. Send us your inquiries for Southern hardwood lumber.

ASH BASSWOOD CHESTNUT CHERRY COTTONWOOD

BUCKEYE CYPRESS MAHOGANY

Need any Oak?
Need any Poplar?
Need any Chestnut?

OUR SPECIALTY—The supplying of high class lumber—at right prices.

Shipment direct from mill—good grades.

YOU CAN'T AFFORD to manufacture Oak Flooring when you can buy it—ready to lay—at our prices.

CAN MAKE PROMPT DELIVERIES

THE F. T. PEITCH CO.,

CLEVELAND, OHIO

GUM POPLAR SYCAMORE PLAIN AND QUARTERED OAK YELLOW PINE

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

Phone Main 6386

Mills: Knoxville, Tenn.
Walland, Tenn.
Franklin, Va.

The Atlantic Lumber Co.

Incorporated

Head Office: BOSTON, MASS.

Manufacturers Southern Hardwood Lumber

Canadian Branch

211 Kent Building, 156 Yonge Street, Toronto
Robert Vestal, Manager

ANYTHING IN OAK LUMBER

We have the following stock we are anxious to move, let us quote you on it:

250,000 ft. 1 in. No. 2 Com. and Btr. Basswood
1,000,000 ft. 1 in. No. 2 " " Hard Maple
40,000 ft. 1 x 4 in. 1 face and 2 faces Clear Birch Strips
50,000 ft. 2 in. 1sts and 2nds Unselected Birch
400,000 ft. 1 in. No. 1 Com. Unselected Birch
50,000 ft. 1 in. No. 2 Com. Unselected Birch
100,000 ft. 1 in., 10 and 12 ft. Moulding Birch

Other Northern Hardwoods in complete assortments

BRADLEY TIMBER & RAILWAY SUPPLY CO.

Second Floor Palladio Bldg., DULUTH, MINN.

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

Wistar Underhill & Nixon

Real Estate Trust Bldg., Philadelphia, Pa.

Canadian Rep. - W. J. Anderson, 288 South St., London, Ont.

Y NOT

buy your Hardwoods direct from

THE MANUFACTURER

Can Furnish Anything In---

Kentucky's Best

Quartered White Oak
Quartered Red Oak
Plain White Oak
Plain Red Oak
Poplar
Walnut
Hickory
Ash

Mixed cars furnished at same prices as straight cars.

J. V. STIMSON & CO.,

OWENSBORO, Kentucky

Pearl City Veneer Company

Manufacturers of

Veneers and Panels

IN ALL NATIVE WOODS

We have for quick shipment Three Ply End Panels, Drawer Bottoms, and Glass-backs

Our shipping facilities for Canadian Trade unequalled.
Enquiries solicited and quotations promptly given.

Factory and Office, Steele St., JAMESTOWN, N.Y.

Yellow Poplar Lumber Co.

Manufacturers of Band Sawed
Poplar, Quartered Oak, Plain Oak, Chestnut, Basswood

SPECIALTY:
Quarter Sawed White Oak

COAL GROVE, Ohio, U.S.A.

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

J. M. Clifford & Co.

Manufacturers and Dealers in
all Kinds of

Hardwood Lumber

Poplar Basswood Cypress Elm Oak Ash Maple

We have a full stock of the above thoroughly air dried. Complete line and high grades. Prompt shipments on mixed cars.

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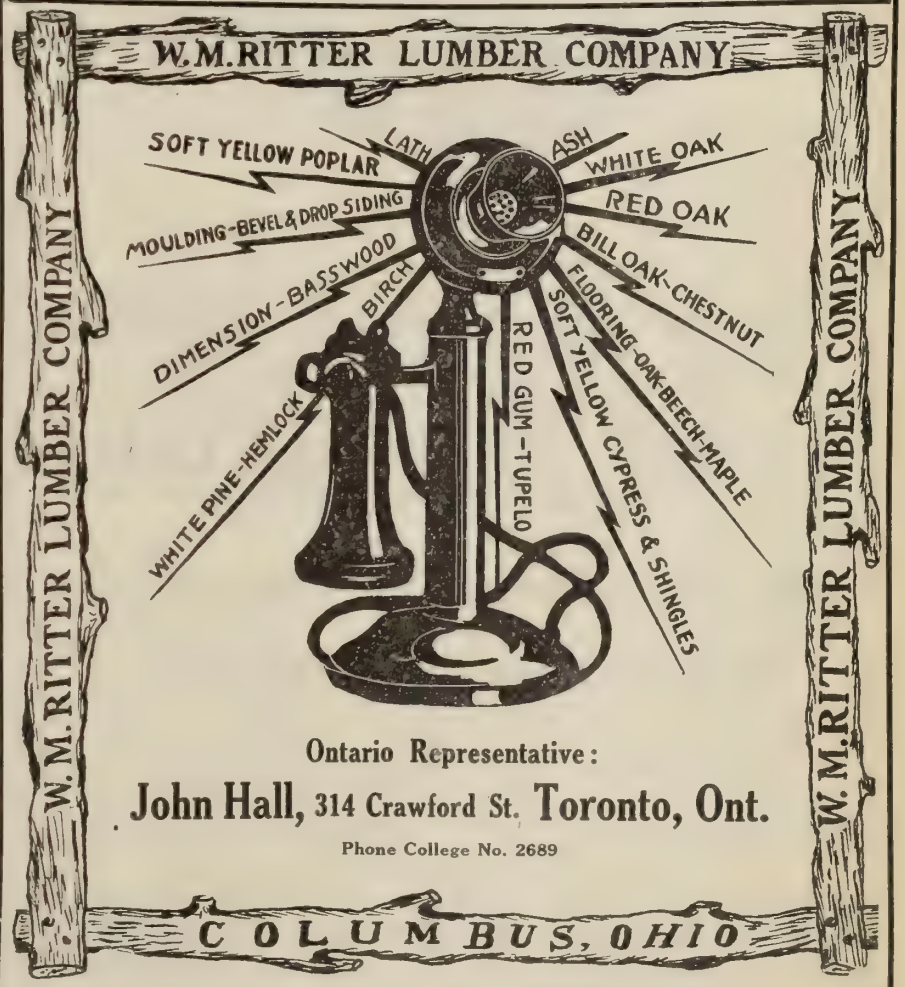

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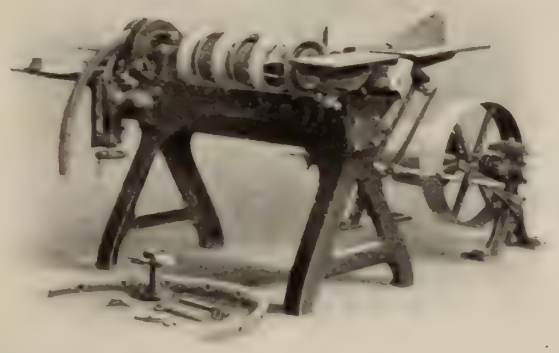

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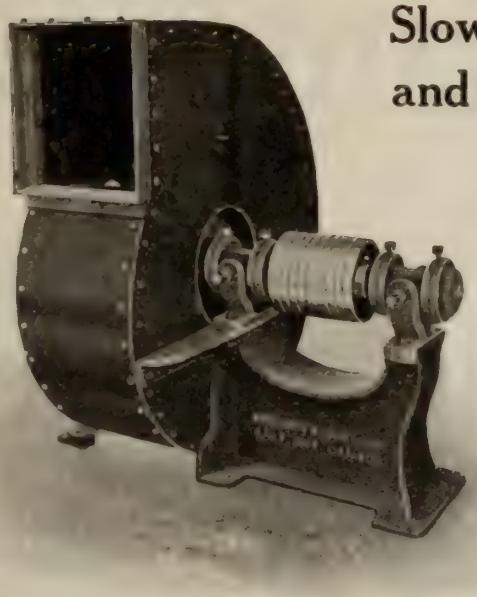

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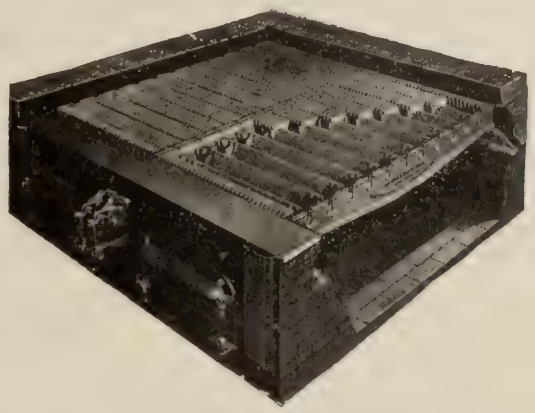

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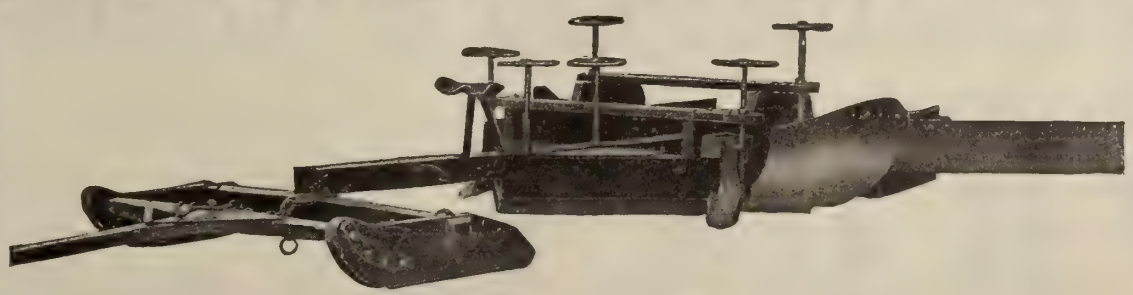
Turbines, Turbo-Electric Generators, Turbo-Pumps and Compressors

"Brazel Patent" SNOW PLOWS

Known in every Camp from the Atlantic to the Pacific as the most satisfactory Snow Plow made.



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One man to operate. Adjusting wheels close together make change for light or heavy work in an instant. Wings placed to throw snow 9' wider than sleigh track or narrower if desired. Height of mouldboards prevent snow falling back on track. **Brazel Plows** cut 6" wider than logging sleighs, roll snow oustide track and away from roadway. Cut off knolls, fill up holes and leave a perfectly level road. Cut off dirt and manure from an ice road leaving a clean roadbed. Roll up and push entirely away from the road, 12" of loose snow each time the plow passes over.

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Catalogue and prices on application

ESTABLISHED 1870

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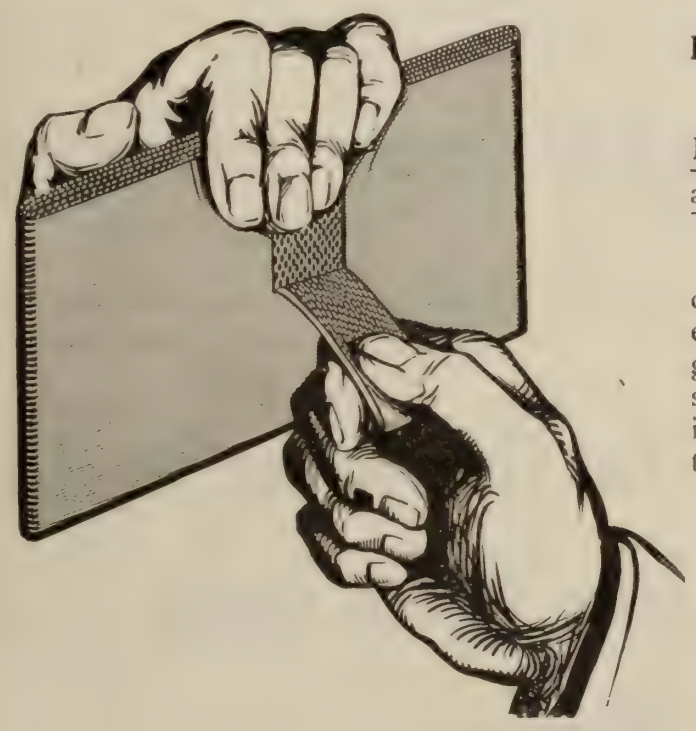
It is built up, layer upon layer, of close-woven, long-fibre, cotton fabric, rubberized and cured under Goodyear processes. And every Goodyear belt has in it the lowest possible minimum of stretch, because the belt is "cured" whilst stretched to the limit of safety in a special machine.

That is the Goodyear Method of Belt Manufacture

And the result is entirely satisfactory to belt users—a fact to which our enormously increased sales testify. What is the significance of this CONTINUED SALES INCREASE — 50% over last year? Simply that Goodyear Belting more than fulfills the claims made for it by the Goodyear people—who know what a belt should do, and make a belt to do it.

It has cost us less than $200.00 for claims or adjustment of every kind in connection with our total output for the past two years—a remarkable tribute to Goodyear reliability.



Look into the Belt for Yourself—Try to Tear It Apart.

Make a cut in the top layer—and then try to pull it apart. You will get a faint idea of its strength.

That is the result of forcing rubber at tremendous pressure through the fine cotton fabric—separating every strand—thus abolishing all internal friction or grinding. Whilst these layers of fabric are afterwards so compressed as to be almost homogeneous, the finished belt bends easily, the "duck" being so woven as to retain complete pliability in the finished belt.

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It has all the tensile strength necessary to absorb tremendous strain without slip, stretch or rent. The grip of rubber and the prodigious strength of hard-twist cotton fabric are united, and prove equal to every emergency.

Where the power transmitted is high, and great tensile strength is essential, Goodyear Rubber Belting proves its worth.

EVERY GOODYEAR BELT IS SUBJECTED TO A STRINGENT TEST BEFORE LEAVING THE FACTORY, and what is more, the materials used in the manufacture are also tested in the Goodyear laboratory before using.

IF YOU USE A BELT AT ALL IT WILL PAY YOU TO USE A GOODYEAR

Loss of power is loss of profit—and an inferior belt is dropping power all the time. Goodyear belting quickly earns its cost in power saved and trouble avoided.

TWO HUNDRED AND FORTY ROLLS—A TOTAL OF 72,000 FEET

We have just received an order for this quantity of GOODYEAR RUBBER BELTING from one business concern in the west, for the equipment of interior elevators. Such an order shows supreme confidence in the quality of GOODYEAR Belting.
If we have not just the belt you require we will make it for you.
In the choosing of belts our booklet would be of great assistance to you. We supply it free. Write to our nearest Branch for one.

THE GOODYEAR TIRE AND RUBBER COMPANY OF CANADA, LIMITED

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Your hardware dealer can get this saw for you.

One of the best things for Canada lumbering was when we began making the Crescent Ground Cross-Cut Saws here at our Montreal factory. We make saws with all standard styles of teeth, but best of all, make them from Saw Steel which we get from the Simonds Own Steel Mill, and by the Crescent Ground process which the originators of this Saw in the United States have found so successful for nearly a quarter of a century.

Every Saw Covered by an Absolute Guarantee

SIMONDS CANADA SAW CO., LIMITED

Montreal, Que. **Vancouver, B. C.** **St. John, N. B.**

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A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

HUGH C. MACLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President.
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Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 32 Toronto, December 15, 1912 No. 24

Christmas and the Lumber Jack

Christmas is upon us again and every lumber jack who is lucky enough to be able to get out of the bush and strike the trail for home to meet the old folks, is getting his turkey packed and preparing to hike down the cadge road. In these modern days many more are able to get away for Christmas than in the earlier days when railroads were not so plentiful and when the woodsman had to be content with a holiday in the bush and a celebration at camp to mark the festive season. And yet we question whether, after all, the good old days were not happier and better days for some of the lumber jacks. They stayed in the bush and celebrated Christmas in a picturesque fashion all of their own and they really felt something of the true Christmas spirit in a manner perhaps which, while rough and peculiar, helped them to feel that there was a spirit of good will afloat among men and that they themselves were performing their allotted tasks in the development of Canadian manhood. To-day, while there is many a lumber jack who gets back to the home circle for Christmas day, there are many also who do not get much farther than the first town, and who celebrate the time of good will among men by getting gloriously drunk and returning later to their work in a much less fit condition than when they left. The influence of the shantymen's Y. M. C. A. and other mission bodies is doing a lot to improve this condition, but the task is a big one and will take many a long year to reach even a reasonable success.

Christmas this year will be a joyous one for many a man in the lumber trade. During the summer which has passed the lumber business has got back upon its feet. Prices have returned to a standard at which it has been possible to save a little money and business has been better than for years past. More than this, we feel fairly safe in counting upon a good expansion in business during the coming year so that a year from now we will have another really merry Christmas.

The ideals which we all encourage at Christmas time are good ones. Even though the season is brief it puts us in a frame of mind which lasts for more than a day or two and gives us a kindly feeling for those who are less fortunate than ourselves. We have no wish to present the lumber jack in the light of a poor unfortunate, but he is a man who lives on the frontier under conditions which call for our sympathetic interest. Those who have it in their way to make the lot of the lumber jack more pleasant owe it to themselves to do what they can; and in doing so they will be doing good business, for in these days the most important and probably the most expensive factor in lumbering operations is the cost of labor. By looking well after the interests and the comforts of the men in the bush the lumber operator will be increasing the return on his money. But let him forget this feature of the case for a few days at Christmas and commence a genuine movement in the direction of studying the interests of the men in the woods.

A great change has come over the life of the lumber jack of late years. The operator has in most cases learned for himself the importance of the ideas which have been referred to above, but there is still room for improvement even in the best camps of to-day. In wishing our readers a Merry Christmas and a Happy New Year we hope that all who have camps in their charge will hand along the good cheer and give the lumber jack also the benefit of all that is coming to him.

Exports of Wood to the United States

Statistics of the exports of wood and manufactures of wood to the United States, which are published elsewhere in this issue, afford several interesting points of comparison between the trade of the present year and of the four preceding years. The total exports of wood and manufactures of wood to the United States were valued at $30,065,206 for the fiscal year ending March, 1912, being the smallest during the past five years, with the exception of 1909, when the total was $29,595,046. The highest value of exports during the past five years was in 1910, being $36,120,828. Practically the same relation exists in the exports of manufactured wood, the total of which during the year ending March, 1912, was $25,444,986, which was the smallest of any of the last five fiscal years. The year 1910 showed the largest value of manufactured exports of wood, the total being $31,778,622.

The exports of planks and boards during the fiscal year ending March, 1912, were valued at $13,634,108, which represented the value of 776,992,000 feet. During the fiscal year ending March, 1911, the total was 847,948,000 feet, valued at $15,948,791, and during 1910 the exports of planks and boards to the United States totalled 970,413,000 feet, valued at $17,877,863. The exports under this head for the fiscal year ending March, 1909, amounted in value to nearly $15,000,000, and those for the fiscal year ending March, 1908, to $15,341,263. It will be seen, therefore, that exports under this head to the United States during the past fiscal year were smaller than those of any of the four preceding fiscal years, although the quantity of exports under this heading during the fiscal year ending March, 1912, was practically identical with the quantity during the fiscal year ending 1909.

Exports of pulpwood amounted to 879,775 cords, valued at $5,697,901. During the two preceding years the values were a little over $6,000,000, and during the two years previous to that, the values were about $4,500,000.

Exports of wood pulp mechanically ground amounted to 3,728,141 cwt., valued at $2,834,329. This shows a decrease compared with 1911, when the total was 4,673,922 cwt., valued at $3,796,427. Compared with 1908, 1909 and 1910, the exports under this head show an increase. The exports of chemically prepared wood pulp amounted to 834,483 cwt., valued at $1,585,615, which is an increase over 1911, a slight decrease as compared with 1910, and a slight increase as compared with 1908 and 1909.

The revenue from Crown lands this year will be considerably less than the amount collected last year, according to the returns being made to the Department of Lands and Mines for Ontario. The rev-

enue last year from the several sources totalled $1,711,438. Of this $426,718 was bonus, $1,173,283 timber licenses and fees, $104,525 ground rent and $7,110 transfer fees. The falling off is due to the decreased cut.

Imports of Wood from the U.S.

During the fiscal year ending March 31st, 1912, pitch pine to the extent of 91,441,000 feet, valued at $1,929,923, was imported into Canada from the United States. During the fiscal year ending March 31, 1911, the imports amounted to 94,048,000 feet, valued at $2,111,818. During these two years the imports were much greater than during the three years preceding, but the value of the imports of pitch pine showed, comparatively speaking, a considerable decline. During the fiscal year ending March 31, 1910, the imports of pitch pine amounted to 42,341,000 feet the value of which was $1,028,423. During 1909 the imports amounted to 42,317,000 feet, valued at $1,049,668. During the fiscal year ending March 31, 1908, the imports of pitch pine amounted to 68,946,000 feet, valued at $2,170,143. It will be seen from these figures that the imports for the year 1908 amounted to a little over two-thirds of the imports for 1912, and yet the value of the 1908 imports was $240,000 greater.

The imports from the United States of sawed boards, planks, deals, etc., subject to duty, during the fiscal year ending March 31, 1912, amounted to 52,538,000 feet, valued at $687,659. These imports have shown a rapid increase during the last few years. In 1911 the total was less than half that of 1912, namely 22,848,000 ft. In the years preceding the figures were as follows: 1910, 7,617,000 ft.; 1909, 6,942,000 ft.; 1908, 4,537,000 ft.

The imports of oak lumber during the fiscal year ending March 31, 1912, amounted to 62,280,000 ft., valued at $2,411,766. In 1911 the total was 57,519,000 ft., valued at $2,316,618. In the three preceding years, the imports were as follows: 1910, 50,556,000 ft.; 1909, 32,220,000 ft.; 1908, 54,536,000 ft.

Under the heading of sawed or split boards, planks, deals and other lumber dressed on one side only, which are free of duty, the total imports for the fiscal year ending 1912, were 378,202,000 feet, valued at $4,984,737. This total was nearly double that of 1911, which was 193,177,000 feet. The value, however, of the 1911 imports was, comparatively speaking, much greater than those of 1912, being $3,496,496. During the last two years the imports were a great deal higher than during the three preceding years, which were as follows: 1910, 84,666,000; 1909, 50,811,000; 1908, 79,013,000. It will be seen, therefore, that the imports under this heading for the fiscal year ending March 31, 1912, were greater than those of the three years 1908. 1909 and 1910 combined.

Statistics of the export and import trade of Canada for the twelve months ending with September, 1912, are now available. Canada's exports of forest products for that period amounted in value to $41,968,315, as against $40,970,101 in 1911, $47,798,570 in 1910 and $44,808,647 in 1909. For the twelve months ending September, 1912, the exports of forest products stood fourth in the list, being exceeded by those of agricultural products, mining products and animal products. For the six months' period ending September, 1912, the exports of forest products occupied the same relative position as during the twelve months, the total being $23,810,713, against $22,807,072 during the corresponding period of 1911, and $27,267,228 during the corresponding period of 1910.

Demurrage Rates to be Increased

Canadian shippers received a pretty raw deal the other day, when the Dominion Board of Railway Commissioners, with remarkable haste, granted the application of the railway companies for permission to increase the demurrage charges. True, the railway companies were not permitted to put into effect the full increase they were seeking, but they were given permission to double the charge for the first demurrage day and to charge three dollars for each succeeding 24 hours. Contrasting the speed with which the railway companies were accommodated in this case with the length of time which it frequently takes for the shippers to secure redress when it is required, one is led to a belief that the Board in the present case have not given the interests of the shippers sufficient consideration.

The railway companies were very shrewd in bringing their application before the board at a time when shippers all over the country were complaining of the shortage of cars. They practically based their application upon this situation, claiming that with an increased demurrage charge cars would be returned into service more quickly by the shippers and that there would be an improvement in the car situation. This point will bear close watching by the shippers and there is this consolation in the result of the case that it will give the shippers an additional argument in favor of granting the application of the shippers for reciprocal demurrage.

In the State of California, reciprocal demurrage is in force and the conditions in Canada to-day call for it as forcibly as do those in California. It is doubtful in fact, whether a more unbearable situation could be imagined than the present one in Canada, where it is next to impossible to obtain cars for shipping goods, and where the railway company is able to make exhorbitant charges for delay in unloading cars which is in many cases directly due to their own inability to avoid delivering cars in bunches.

Now that the order of the Board of Railway Commissioners has been granted in accordance with the application of the railway companies, there is little left for the shippers to do but press their appli-

Christmas 1912

A slap on the Back
A glad word in the Ear
Makes a Good Fellow
Thruout the whole Year

New Year 1913

cation for reciprocal demurrage. Their claim for this was justified clearly before the present situation developed. It is now so strong that we cannot but believe that the Board of Railway Commissioners will make an order bringing it into effect at an early day.

A report of the application of the railway companies for the increased demurrage charges and of the finding of the Board of Railway Commissioners upon the application will be found in another section of this issue together with some interesting comment upon the subject by a well-known Montreal lumberman.

In view of the situation as it now stands, shippers ought to leave nothing undone which will assist them in securing reciprocal demurrage. If higher demurrage charges will remove any of the car shortage, reciprocal demurrage ought to put a complete end to it. Lumber shippers ought to send facts of their inability to get cars to the Dominion Board of Railway Commissioners at Ottawa. If all would do this for a short time the Board would quickly realize that the troubles of the shippers are even greater than those of the railroads.

Discrepancies in Freight Car Weights

Many discrepancies occur from time to time in connection with the weighing of car loads of lumber in the United States. The same applies to Canada and, we suppose, to every country under the sun where shipments of lumber are made. In Canada we are continually bringing matters of this sort before the Board of Railway Commissioners. In the United States the same problems are being discussed continually before the Interstate Commerce Commission and at present one which is of considerable interest and importance is under consideration. A meeting of the Commission was held at Boston on November 25th, when the National Wholesale Lumber Dealers' Association through its traffic manager presented evidence covering some 50 shipments on which incorrect weights had been assessed. The evidence showed that errors had been made in calculation; weighing figures had been transposed and the wrong tare weights had been inserted. Several instances were cited where investigation failed to develop that the cars had actually been weighed, notwithstanding that the gross, tare and net weight figures had been inserted on the billing. Other cases showed that the assessed weights were exhorbitant when compared with recognized estimates. Evidence was also presented covering 50 shipments which were loaded on flat and gondola cars equipped with car stakes, and on which no car stake allowance had been made at the time of scaling.

A resolution was presented to the Commission which had been passed by the National Lumber Manufacturers' Association and the National Wholesale Lumber Dealers' Association. After reciting the unsatisfactory condition at present in existence, the resolution suggested that the Commission should require the railroads to show on the bills of lading, the gross, tare and net weights, less allowance for stakes, dunnage, etc., on each car, or furnish a weight certificate. In case the consignor or consignee should request another scaling, the resolution suggests that it should be weighed at the next point ahead of the car and if a difference of over 1000 lbs. be shown, the weights authorized by the various lumber associations should be recognized. The resolution also suggested that a joint committee should be appointed consisting of railroad officials and lumber shippers who within a reasonable time should agree on a schedule of weights to be used between the parties.

Editorial Short Lengths for Busy Readers

The annual destruction of young evergreens for use as Chistmas trees has taken place this year to probably a greater extent than in former years. It is certainly the duty of the Governments concerned and their departments of forestry to take steps which will prevent this from occurring in future. A concrete example of the destruction involved will probably bring the matter home very definitely to all who are in any way interested. A well known lumberman in Toronto recently saw at the railway crossing on Queen street east no less than eleven flat cars loaded with young spruce trees destined for use as Christmas decorations. He estimated that there were probably about 1200 trees in a car load at least, as they were packed very tightly. They formed a solid mass of boughs reminding one of the manner in which hay is packed for shipment. These young trees, all of which had passed the dangerous period of their early growth were practically all certain to develop into full sized trees not many years hence. Now they have been cut down and wasted all for the celebration of an event which could be just as well celebrated in some other manner, or with trees equally effective, but made of some artificial material. We have called attention of this matter regularly at Christmas time each year. We hope that the Conservation Association and the Government will soon do something to stop this waste.

The Pennsylvania Chestnut Tree Blight Commission has just issued for the information of the public, Bulletin No. 1, a brief, illustrated publication giving the means of identifying the chestnut blight disease and suggesting remedies for its control and eradication. The interesting document points out the great danger of extermination that menaces Pennsylvania's vast chestnut resources, and urges a prompt and vigorous co-operation generally in the effort in progress to stamp out this new, but terribly destructive pest. The disease has already entailed losses to timber owners in Pennsylvania amounting to fully ten millions of dollars, having been especially virulent in South Eastern Pennsylvania, where thousands of both old and young chestnut trees were killed by the blight. West of the Allegheny Mountains, through a concentrated effort on the part of the employees of the Commission and with the co-operation of timber owners and others, the blight will practically be wiped out by the close of the year, thus giving the assurance that a large portion of Pennsylvania's many millions of dollars worth of chestnut may be saved, and the disease checked before it can spread into the valuable timber of adjacent states. Copies of the bulletin are available and will be sent without charge upon request, by writing to the Commission, at 1112 Morris Building, Philadelphia.

With a view to disposing of all the fringes and gores of forest land that have been left over after the survey of timber limits in British Columbia, cruising parties for the provincial government are now out measuring up the timber on numerous fringes of timber land at Pender Harbor, Powell Lake, Gordon Pasha Lake, Deer Bay, Deception Sound, Redondo Island, Point Grey and Green Point Rapids. Timber Inspector McKay states that so soon as the cruisers' reports are received, the timber will all be put up for public sale. Sealed tenders will be invited and the government will dispose of the timber to the highest bidders. All burned over timber lands in the coast district are also to be surveyed forthwith, and the timber thereon offered for public sale. Fires last year on the upper Fraser are stated to have swept through immense areas of spruce and tamarack, which, like the white pine, are unfit for use unless cut within two seasons after fire visitation. After that time such timber is usually eaten into by insects, while the sap is drawn back into the earth from the dead trees, and they rot at once. In the case of cedar, fir and harder woods, the timber will keep alive much longer. It will be necessary to log off the upper Fraser limits in 1913 and 1914 if the timber is to be saved from total waste.

THE CHRISTMAS TREE AT PINEVILLE

HAPSBURG LIEBE

IT was a little town—perhaps to say it was a village would sound better. It had been made and afterward kept in existence by the big sawmill that stood down beside the river, now fringed with ice. To the east and to the west, to the north and to the south, lay vast stretches of timberlands more or less cut over, but still able to furnish the monster sawmill with many more years of work.

Being isolated from the rest of the world, the people of Pineville were much on the order of one big family. There were never any dissensions, no factions; all was cordialty and kindness among them, and such a thing as different degrees of society was totally unknown. The company which owned the lumber operations was a good payer, and supplies were never wanting.

Consequently the Pineville folk mourned little over their solitude. When mill foreman John Fenwicke suggested an innovation in the shape of a Christmas tree, he was immediately lauded for his thoughtfulness by the men to whom he mentioned it, who were Arthur Allen the sawyer, and Billy Hixon the filer. Then the three talked the matter over with the entire mill crew, and every man of them fell in with the idea with great enthusiasm—and at the same time reached for their pocketbooks, which proved that the spirit was there.

The result was that the next river steamer carried to Bartow, the nearest city and a seaport, a comparatively large order of the things that go to make up the line of presents one usually sees dangling from candle-lighted green branches, with artificial snow and glittering decorations.

The presents came in due time, and the crew chose a committee of three to arrange the tree, which had already been brought and erected in the back of a large vacant cabin in the outskirts of the village. The committee composed of the foreman, the sawyer, and the filer, had gathered on Christmas afternoon to prepare everything for the coming evening, when the event was to take place. The others very thoughtfully remained at home that they might not bother, and that the surprise might be more effective.

For what, indeed, is Christmas without a surprise?

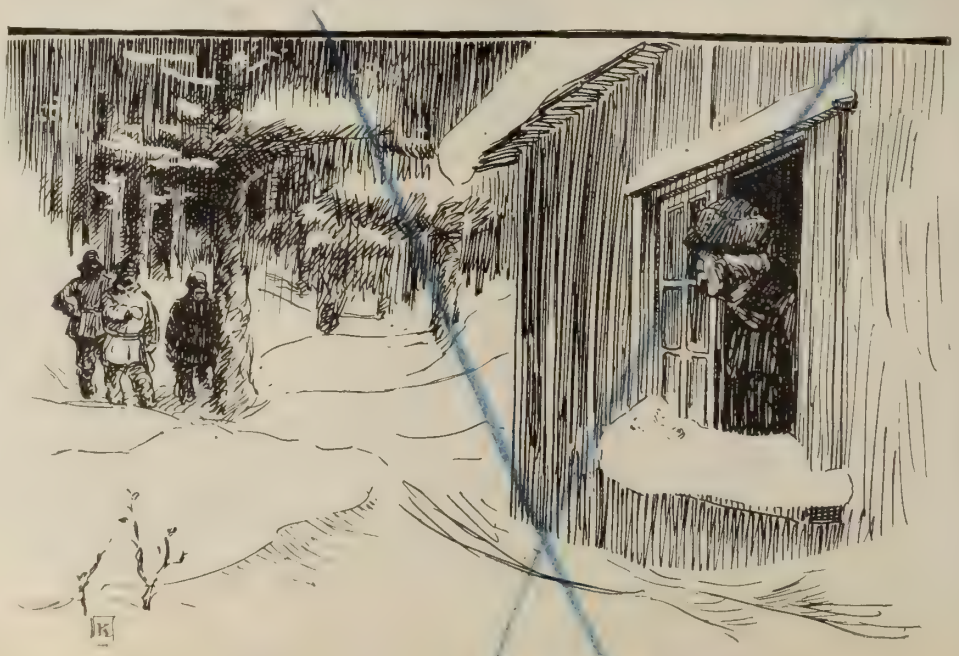
As the three stood surveying the packages and bundles, the dolls and sweets and air rifles for the children, the sawyer gave an exclamation of regret, then turned and gazed thoughtfully out of the nearest window and to the sparkling snow.

"What's wrong," asked Fenwicke—"forget something?"

"As sure as you're a foot high," said Allen, facing the foreman.

"There is one little woman here who had no husband to hand in his list; and the rest of us, in our own enthusiasm, forgot to get her a single thing. I mean the Widow Morgan, Big Jack's wife.

The other two frowned also, and for a moment there was a silence that accorded illy with the outlay of gifts, the Christmas spirit, and the waiting tree of green in the back end of the cabin.



"We're coming to climb your Christmas Tree and shake it."

It was a pitiful story, the story of Big Jack Morgan's wife. Big Jack had gone down to Bartow just a year before, and had never come back. Inquiries had revealed only the fact that he had drank rather heavily—a thing which he rarely did, be it said to his credit. And for reasons regarded sufficient by the good folk of Pineville, this bit of information had been well hidden from the ears of the little woman who still sorrowed for her giant of a husband.

Morgan's presence had many times been wished for by the men of the isolated sawmill village, because of the rowdyism of several fighting men from a town to the north called Wolfton. These rude fellows, since Big Jack had been gone, had taken a keen delight in stalking through the crooked streets of Pineville and daring its men out for a fight. The men of Pineville were not cowards; they were there for the sole purpose of working hard and saving their money, and fighting was a thing that came utterly foreign to them. However, so insolent had the Wolftonites been on certain occasions that only the influence of the Pineville women had prevented some very lively jousts.

It had been different in the time of Big Jack Morgan. He had been the greatest fighter of his time, and he had left his footprints on the faces of more men than one. Big Jack had been the law, and the natural protector of Pineville; and the Wolftonites had feared him much.

"What," asked Hixon, looking from one of his friends to the other, "are we going to do for a present for the little widow?"

"Search me!" replied Fenwicke and Allen in a breath, each throwing his hands outward in a gesture of utter helplessness.

"Money wouldn't do, of course," mused the filer, thoughtfully rubbing his forehead. "She's too proud to touch it. You both know the trouble we've had in making her believe the money we've given her came from insurance the company carried on Big Jack's life."

"No," Fenwicke agreed, "money wouldn't do; she wouldn't touch it."

"If we had a little more time," began Hixon, "we might yet—"

The foreman, who had turned and stood looking from the window toward the snow-heavy forest which lay but a few rods away, interrupted the filer: "Look at that!" he said angrily, and raised the window. Then he called to someone whom he had seen trying to hide in the bush:

"Well?"

The other two of the committee approached Fenwicke, curious to know whom he had addressed. And at that moment, realizing that they had been observed, three of the rowdies from Wolfton stepped out into plain view, standing in the snow halfway to their knees!

"We thought we'd say to you," growled out Nig Bartele, a particularly insolent man, "that we'd be here to climb your Christmas Tree and shake it to-night, nothing hindering."

"Come in and shake it now, if you think you can!" dared

A prominence about Fenwicke's Equatorial Regions suggested Sofa Pillows

Allen, who was impulsive and rather hotheaded in spite of himself.

"Nothing on it now," returned Nixey Dethrow; "we'll wait until to-night, when the presents are all arranged—and besides," he added with a malicious grin, "there'll be an audience then."

"Don't worry over our failing to put in an appearance," called the third Wolftonite, a huge, dark man named Sam Black, and who was more often addressed as "Black Sim"; "we'll be here alright."

"And you'll get filled so full of lead," answered Allen, choking with rage "that it'll take a steam crane to lift you!"

Fenwicke and Hixon were not so hotheaded as Allen. They lowered the window that there might be no more conversation between their friend and the rowdies from Wolfton.

"We must not get into it with those fellows," said Fenwicke, "until we have no alternative. They make a business of fighting, and we do not; besides, we mustn't have a fight here on Christmas."

"We'll have a fight here on Christmas if those skunks attempt to come here and shake the presents off the tree," Allen declared, "whether we win or not. We can't stand for that, you know, Fenwicke."

"In that event," replied Fenwick, "of course we'll give them all we've got, whatever it happens to be."

"I wish, by George," said the filer, "that Big Jack Morgan could be here. He's the fellow we ought to have with us. He's whipped half a dozen of those Wolftonites at one and the same time, and they're sure afraid of him."

"But we can't have Big Jack with us, I'm sorry to say," returned the foreman, with a sorrowful shake of his head.

As he finished speaking, a stone came crashing through the nearest window, sending bits of glass flying in all directions.

Allen uttered a few words that were entirely out of place with the spirit of the occasion, and bolted for the door.

"I'm going to get a gun, boys," he said as he put a hand hastily on the latch. "A man's a fool if he doesn't take up for himself in a case like this!"

Fenwicke leaped to the irate man's side and closed the barely opened door, at the same time dropping a hand on Allen's arm.

"Don't," he implored. "If they come here to-night, we'll fight them; but I think it's wisdom to take a little of their insolence now. Speaking of going after a gun, if we were to break the old law of the woods and start gun play, they'd be sure to take it up in the future; don't you realize the danger there'd be for the women and children?"

"They've gone," the filer informed the foreman and the sawyer. "I see them hitting the trail for home."

Fenwicke's mind returned to the thing that had stumped them so hard and so completely a few minutes before, the matter of a present for the wife of Big Jack. He suggested that he mention it to Mrs. Fenwicke and left the cabin for his home.

And when he returned, half an hour later, he told the other two members of the committee that he had solved the difficulty. Although there was scant necessity for it, he whispered it to them; and both the filer and the sawyer slapped him on the back and told him he was great, that only he could have thought of it.

While easily angered, Allen was also easily brought back to his customary good humor, and soon he was as busily talking and laughing and writing names on bits of shoe-box cardboard as the other two. Then Fenwicke and Hixon began to fasten the gifts to the branches of the tree, while Allen busied himself with arranging the decorations—the tinsel, the candles of many colors, and the artificial snow—and the latter seemed peculiar, considering the amount of real snow that lay banked everywhere on the outside.

Darkness had fallen by the time the committee of three had finished the tree of gifts, picked up sufficient chairs to accommodate the audience, and brought wood for the stove that the little folks and their fathers and mothers and the rest of them might be comfortable while the entertainment was in progress.

Then Hixon and Allen put lamps in place on the walls, and busied themselves in making the room warm, while the foreman hied himself homeward to don the Santa Claus outfit his wife had been making for the past two or three weeks.

An hour later the good people of Pineville began to fill the many different kinds of seats—and Hixon and Allen, as ushers, were careful to see that the women and children took places near to the walls, with the men sitting near the aisle. The latter precaution, of course, was taken in anticipation of any trouble the Wolftonites might cause.

A gentle hum became evident over the room. Many there were who gazed with smiles and gay whisperings toward the tree of tinsel and white and green, and allowed themselves to be transported back to their youthful days in another and less isolated world. Little boys laughed at little girls—while really wondering concerning the future disposal of certain air rifles—and pointed to the array of yellow-headed dolls; and the little girls blushed happily and dreamed the most delightful dreams of coming motherhood. Grave matrons wondered vaguely about the many and beribboned packages, and affectionately called their husbands sweet names under their breath. Men with a bit of gray at their temples observed it all and grinned in a manner that would have seemed absurdly silly on any other occasion.

The little wife of Big Jack Morgan was a trifle late. Perhaps she felt that she had no part in the affair, that she was really a dependent. She would have taken a back seat had not Allen,—who was of course as bighearted as he was hotheaded, as such persons usually are,—led her to the front and esconced her and her pair of curly-headed boys in a place of honor.

"I want you to sit here, Mrs. Morgan," he smiled, "where the children can see better. You don't mind?"

"Thank you, Mr. Allen," the woman said thickly.

Then there appeared in the doorway John Fenwicke, as Santa Claus; and so well was his face disguised in a heavy, flaxen beard that his own children did not recognize his features. He wore a red blouse trimmed with fur, high boots, and a pointed hat; and, to those who knew, there was a prominence about his equatorial regions that suggested the theft of some three or four sofa pillows—for John Fenwicke was rather slender and lean.

A hush fell upon the assemblage. The grown people grinned into their hands; the juvenile members of the audience crowded closer to their mothers and gasped wide-eyed—for this was their first glimpse of the much talked of old fellow who had a strange liking for sliding down sooty, smutty chimneys when there were doors that would have served his purpose a great deal better.

And, although it is neither here nor there, some of the more inquiring minds of these juvenile members of the audience wondered how he ever succeeded in negotiating certain chimneys of small calibre, considering the magnitude of his before mentioned equatorial regions.

Fenwicke nodded right and left as he strode with ridiculously long strides up to the tree of tinsel and white and green that stood in the back end of the room. Then he faced about in a very soldier-like manner, bowed as though at the court of a king, and said a few appropriate words—such words, they were, as only Santa Claus, the sly old rascal, could have thought of. And his voice, one of the children remarked afterward, sounded exactly like a bear talking.

Upon being asked, Billy Hixon told him that all the little ones of Pineville had been good with the exception of John Fenwicke, the foreman, who had been kept at home as punishment for fighting—which, of course, explained the mysterious absence of Fenwicke.

Everybody laughed; even Santa Claus himself let out a giggle that seemed wholly out of place for such a dignified person. And Santa Claus barely refrained from shaking his fist at Billy Hixon.

Soon the dolls began to move from the tree to the arms of the little girls, and the air rifles began to find themselves clasped in the arms of the little boys; and later the beribboned boxes found their way to the older people. Hixon and Allen were the carriers, and they did the work with as much pleasure to themselves as to the others.

And then Allen saw the door open slowly, and there peered in the dark and evil eyes of Black Sim, one of the rowdies from Wolfton! Allen knew Black Sim was not alone; that several of his friends were behind him.

The sawyer was not in the least surprised; he had expected the Wolftonites much sooner. He stole quickly to Santa Claus.

"They're here," he said in a low tone.

"Just wait until they start in to climbing the Christmas Tree," Fenwicke whispered back.

At that moment the door was pushed roughly wide open, and the forms of Black Sim, Nig Bartele, Nixey Dethrow, and Curley Barnes, the devil's own pick

There had been so many, many delusions

and choice of the Wolftonites, came up the aisle and toward the tree of tinsel and white and green, scattering snow from their feet as they walked!

Santa Claus faced the intruders, asked them to wait one moment, and addressed the audience:

"Good people," a note of triumph in his voice despite its assumed gruffness, "these boys have deluded themselves into the idea that they are going to shake our Christmas Tree. But do not be afraid, good people, for I have with me an automatic fighting machine that can thrash the four of them and not feel that it has had decent exercise. The machine will please come forth!"

The machine came forth in response to the request of the man in the flaxen beard and the red, fur-bordered blouse—from behind a few boards that had been set upright in a corner to hide it. It strode with heavy steps, steps that made the floor vibrate, toward the four men from Wolfton, who were watching developments with a sudden interest.

It was a regular giant of a man, wearing a heavy black beard; his hands were doubled into fists that seemed as large as small hams. His eyes flashed their oldtime hatred of his oldtime enemies.

The four rowdies knew him and started back. Then Black Sim, in a spirit of daredeviltry, halted his fellows with the words:

"Stop—we're four to one!"

"Yes, stop—you're four to one!" jibed the giant.

"At him!" cried Bartlle.

The fighting machine lunged forward with a blow that would have shaken any pine within a mile. It struck the foremost of the bad men, no other than Black Sim himself, and sent him crashing against his fellows. Another blow—a veritable shower of blows—followed; and within another minute the huge man had driven all four of the Wolftonites, badly bruised, out into the snow. It was a fight that they still talk of in Pineville.

"Now," said the fighting machine, "what do you think of shaking Christmas Trees?"

The Wolftonites slunk off in the snow, each rubbing some bruised spot, each swearing under his breath—since he did not dare to swear openly.

John Fenwicke seized both Hixon and Allen by the shoulders and began to shake them crazily—at least it seemed crazy to see Santa Claus acting like that.

"Now," said he, "what do you think of my plan?"

"Fine!" cried the sawyer and the filer in one voice.

Then Hixon and Allen stepped down and escorted the fighting man to Santa Claus, who was still doing his utmost—and without a vast amount of success—to make his equatorial regions shake with laughter.

John Fenwicke placed his hands on the giant's shoulders and turned him round, facing him to the members of the audience, who sat as silent as stones in their astonishment. Then Fenwicke looked toward the little wife of Big Jack Morgan, who had straightened tensely, one arm about each of her two curly-headed boys.

Perhaps she feared to believe that which her own eyes showed her; for there had been so many, many delusions!

"It's spoiled a little, I guess," smiled the rascally Santa Claus; "but it's pretty good as it is. Mrs. Morgan, in all my years, in all my Christmas experiences, I have never made a present that gave me as much pleasure as the making of this one to you—your husband, Jack Morgan, God bless him and you and your babies, and may many happy years be the lot of you all!"

Big Jack went to his knees before his wife, and buried his great, dark head in her lap. The little woman gave a smothered cry of gladness, bent and sobbed in her unexpected happiness, while Santa Claus allowed a glistening drop of water to roll from each eye to his heavy, flaxen beard.

Morgan had been shanghaied at Bartow, and afterward forced to serve as a deck hand on a slow vessel that sailed around the Horn; then he had been shipwrecked and cast upon an island in the South Atlantic. Fenwicke had met him while on the way to confer with Mrs. Fenwicke concerning a gift for the woman they then regarded a widow; and, after some pretty strong persuasion, Morgan had agreed to delay his meeting with his family—the reasons for which, as well as the results of which, we already know.

At the inquiry before the Railway Commission, Ottawa, into the application for increased demurrage charges, the lumber section of the Montreal Board of Trade was represented by Mr. Arthur H. Campbell, of the Campbell-MacLaurin Lumber Co., and Mr. W. S. Tilson, the transportation expert of the Board of Trade.

The Laurentide Company, of Grand-Mere, P.Q., have, it is reported, purchased the only water-power available on the St. Maurice around the Grand Piles district. It is capable of developing 25,000 horse power. The owners were the Canada Iron Corporation.

Legal Title in a Timber License

Important Decision of Privy Council Regarding Execution Creditor's Right to Timber

One of the most important legal decisions from the point of view of the lumber industry in Ontario, that has ever been given by the Privy Council, was recently made public in the case of Allan McPherson and another vs. the Temiskaming Lumber Company, Limited. This was an appeal from a judgment of the Court of Appeal for the province of Ontario of September 20, 1911, reversing a decision of Mr. Justice Teetzel.

Lord Shaw of Dunfermline, in delivering their Lordships' judgment, said the appeal arose out of inter-pleader issues, and the particular issue was whether certain saw-logs seized in execution by the sheriff of Nipissing, Ontario, were exigible as against the claimants, the Temiskaming Lumber Company, Limited.

After reciting the circumstances of the particular case his Lordship said the point which had been taken by the respondents was this—that while it was conceded that under the law of Ontario execution might proceed against both the goods and the lands of a debtor, a timber license and all the rights, privileges, and interests of the licensee thereunder constituted, so long as the timber stands, neither the one nor the other, but formed an unattachable legal entity. That point—which was of much importance to the province—gravely affected the rights of timber licensees, their mercantile credit, and the security which they were able to afford in commercial dealings.

In the present case Mr. Justice Meredith was unable to understand why the interest in land of a licensee under the Crown Lands Timber License was not an interest in land liable to seizure and sale under a writ of execution as well as liable to assessment for the purpose of taxation. Their Lordships found themselves in the same position. The Court of Appeal, however, held that the matter was concluded by authority, and in particular by the case of the C. P. R. Company vs. the Rat Portage Lumber Company, decided in 1905 (10 O.L.R., 273).

It was important to note that the scheme of the Execution Act of Ontario was plainly meant and was fitted to attach not only goods and chattels, but also landed rights. Citing, with approval, Lord Davey's judgment in The Glenwood Lumber Company (Limited) vs. Phillips (A.C., 1904, p. 408), their Lordships said, in their opinion a title to the land itself, subject, of course, always to the restrictions, conditions, and limitations laid down in the license, was in the licensee of timber lands.

In their Lordships' view the construction of the statute was clear. Under the act the position of the holder of a timber license was: (1) That he was the possessor of an asset of the nature of land; (2) that that asset was accordingly subject to execution; (3) that the execution did not interfere with the property of the debtor or his power to assign or transfer, subject only to the security of the execution creditor not being impaired; (4) and when there was cut timber on the land at the date of execution, that timber was, of course, the instant subject of seizure; (5) should the timber be cut subsequent to the date of the execution, it was then instantly attached, and the execution could not be defeated, because the cutting operations had been made by an assignee or transferee to whom, in the interval between the laying on of the execution and the cutting of the timber, the licensee had transferred his rights; and (6) the only exception to this was the case of a title being acquired by a third party in good faith and for valuable consideration and without notice of the writ having been delivered to the sheriff and remaining unexecuted.

It seemed to their Lordships that if those principles were violated the way was opened up to the defeat of the execution creditor's rights, and, as the circumstances of this case very plainly showed, to transactions of a questionable nature under which debtors would endeavor to avoid their just obligations.

The only question remaining in the case was whether the respondent company so acquired in good faith, and for valuable consideration, and without notice. In their Lordships' opinion the whole circumstances were such as to show that there had been an attempt to defeat the rights of the execution creditors, and that the respondents were aware of that attempt and had pursued a course of conduct with a view to its success. In the result their Lordships were of opinion that the rights of both of the appellants under the three executions referred to fell to be satisfied out of the $10,000 secured by the bond, and that the appellants should be found entitled to the costs of this appeal and in the courts below.

Their Lordships would humbly advise his Majesty that the judgments appealed from should be reversed, that the cause be remitted to the Court of Appeal to dispose of the actions in accordance with this judgment, and that the costs should be dealt with as above stated.

CANADIAN EXPORTS OF WOOD AND MANUFACTURES OF WOOD TO UNITED STATES, FOR YEAR ENDING MARCH 31st, 1912.

	1908 Quantity	1908 Value $	1909 Quantity	1909 Value $	1910 Quantity	1910 Value $	1911 Quantity	1911 Value $	1912 Quantity	1912 Value $
Wood and mfrs. of:—										
Wood, unmanufactured:—										
Bark for tanning.....Cords	7,035	34,215	19,659	122,118	15,087	83,264	12,949	78,138	7,919	46,768
Firewood..... "	28,952	83,054	29,409	77,458	18,413	46,604	19,330	46,055	17,593	57,936
Hoop, hop, telegraph and other poles..	.....	116,424	.....	43,896	.....	55,810	.....	78,521	.....	74,219
Knees and futtocks.....No.	28,438	18,896	19,799	15,618	13,274	7,556	4,772	3,068	7,845	6,631
Lathwood.....Cords	1,740	6,376	913	3,465	1,924	10,310	400	1,600	324	1,134
Logs,—Elm.....M. ft.	395	3,973	690	8,136	353	3,983	1,201	13,106	526	6,999
Hemlock..... "	4,123	31,489	3,360	31,797	2,024	15,273	778	6,946	1,959	17,339
Pine..... "	231	2,894	4,431	20,981	1,392	20,102	4,726	26,610	7,955	69,287
Spruce..... "	9,820	101,231	11,048	109,784	12,042	123,363	13,760	152,327	8,644	72,708
All other..... "	54,637	528,550	90,494	738,387	94,136	796,596	102,397	962,834	65,191	571,823
Lumber,—Battens.....	.....	.....	.....	2,391	.....	22	.....	.....	.....	3,713
Basswood.....M. ft.	4,457	80,121	2,561	52,179	2,795	61,576	3,514	75,844	1,252	33,361
Deals, pine.....St. Hd	1,875	86,751	1,130	61,519	1,332	83,305	1,932	115,529	816	46,248
Deals, spruce and other..... "	10,269	410,462	8,817	351,825	12,461	572,103	5,291	247,708	11,494	491,544
Deal ends..... "	355	10,956	273	7,516	480	14,142	245	6,888	684	19,567
Laths, palings and pickets..M.	605,679	1,651,120	721,586	1,744,485	793,919	2,049,076	694,779	1,776,108	671,351	1,821,518
Planks and boards.....M. ft.	809,629	15,341,263	774,217	14,814,106	970,413	17,877,863	847,948	15,948,791	776,992	13,634,108
Joists and scantling..... "	32,356	412,902	30,021	394,265	44,131	594,962	41,532	571,723	47,953	641,156
Shingles.....M.	1,073,463	2,518,517	1,057,338	2,520,339	918,788	2,298,055	711,624	1,648,448	577,167	1,451,878
Shooks.....	.....	20,634	.....	13,646	.....	26,300	.....	8,323	.....	12,388
Staves and headings.....	.....	151,585	.....	60,690	.....	35,309	.....	47,053	.....	35,747
All other lumber.....	.....	139,211	.....	242,471	.....	319,401	.....	197,792	.....	92,152
Masts and spars.....No.	322	1,602	322	1,560	269	610	148	456	360	1,881
Match blocks.....	.....	275	.....	2,989	.....	3,953	.....	6,095	.....	2,263
Piling.....	.....	298,966	.....	74,002	.....	129,418	.....	170,734	.....	202,374
Posts, cedar, tamarack and other.....	.....	29,707	.....	32,248	.....	46,930	.....	34,228	.....	30,229
Shingle bolts, of pine or cedar.....Cords	12,765	51,694	12,324	47,214	16,533	72,764	10,894	37,002	9,799	31,875
Sleepers and railroad ties.....Pieces	1,916,513	591,382	866,404	289,473	908,097	328,277	1,049,272	356,701	801,832	232,167
Timber, square.....Tons	2,415	28,928	21,610	129,672	1,908	22,211	684	12,146	810	13,682
Wood, blocks and other, for pulp.....Cords	902,311	4,656,721	794,986	4,356,391	965,271	6,076,628	936,791	6,092,715	879,775	5,697,901
All other wood, unmanufactured.....	.....	9,068	.....	7,094	.....	2,856	.....	4,571	.....	24,390
Totals, wood, unmanufactured.....	.....	27,418,967	.....	26,377,715	.....	31,778,622	.....	28,728,060	.....	25,444,986
Wood, manufactured—										
Barrels empty.....No.	42,331	50,392	37,928	42,972	36,617	45,618	34,778	49,672	39,105	37,949
Household furniture.....	.....	32,721	.....	29,404	.....	32,486	.....	30,494	.....	31,555
Wood pulp,—										
Chemically prepared.....Cwt.	769,514	1,364,030	670,404	1,223,702	831,331	1,597,319	716,427	1,298,162	834,483	1,585,615
Mechanically ground..... "	3,033,885	2,181,560	2,408,629	1,841,177	3,181,507	2,577,990	4,673,922	3,796,427	3,728.141	2,834,329
All other wood manufactured.....	.....	110,920	.....	80,076	.....	88,793	.....	113,096	.....	130,772
Totals, wood, manufactured.....	.....	3,739,563	.....	3,217,331	.....	4,342,206	.....	5,287,851	.....	4,620,220
Recapttulation.										
Wood and mfrs. of.....	.....	31,158,530	.....	29,595,046	.....	36,120,828	.....	34,015,911	.....	30,065,206

CANADIAN EXPORTS OF WOOD AND MANUFACTURES OF WOOD TO GREAT BRITAIN, FOR YEAR ENDING MARCH 31st, 1912.

	1908 Quantity	1908 Value $	1909 Quantity	1909 Value $	1910 Quantity	1910 Value $	1911 Quantity	1911 Value $	1912 Quantity	1912 Value $
Wood and manufactures of:—										
Wood, unmanufactured:—										
Logs.....M. ft.	2,074	30,366	1,011	19,164	3,135	41,060	1,187	26,689	1,772	27,440
Lumber—Basswood..... "	460	13,691	271	6,761	165	4,912	331	11,755	659	24,303
Deals, pine.....St. Hd.	23,328	1,588,249	25,315	1,617,354	23,873	1,556,229	21,704	1,406,444	16,728	1,342,589
" spruce & other..... "	160,132	6,057,286	125,287	4,782,490	144,852	5,825,732	148,651	6,471,153	137,456	5,309,113
Deal ends..... "	7,858	298,089	7,297	287,713	8,134	334,481	7,244	310,295	6,672	281,978
Planks and boards.....M. ft.	75,097	1,562,047	71,819	1,469,768	72,507	1,387,459	79,778	1,659,701	96,795	1,965,224
Joists and scantling..... "	42,236	463,285	33,664	354.668	42,330	487,262	35,584	434,534	29,222	358,009
Laths, palings, pickets....M.	1,615	38,505	4,489	29,793	3,691	18,204	20,351	69,044	27,167	77,100
Shooks.....	.....	108,617	.....	17,070	.....	137,149	.....	231,703	.....	116,881
Staves and headings.....	.....	53,962	.....	19,614	.....	26,468	.....	24,904	.....	30,014
All other lumber.....	.....	132,646	.....	167,860	.....	247,084	.....	203,644	.....	152,356
Totals, lumber.....	.....	10,316,377	.....	8,753,091	.....	10,024,960	.....	10,828,177	.....	9,657,567
Timber, square—Ash.....Tons	1,403	24,525	552	9,484	380	5,689	228	3,779	64	1,067
Birch..... "	9,865	123,875	10,344	110,757	11,226	132,702	8,931	112,651	13,079	156,395
Elm..... "	7,882	212,183	4,657	134,435	4,090	115,390	7,430	219,732	6,475	225,442
Oak..... "	15,179	400,761	7,242	211,884	3,871	107,640	8,272	205,047	9,579	187,756
Pine, red..... "	309	6,097	1,510	45,579	4,460	136,952	.....	.....	1,631	39,578
" white..... "	32,794	993,095	21,504	683,995	17,498	554,235	18,996	597,121	21,648	811,800
All other..... "	1,281	32,647	2,530	54,134	1,268	16,134	917	11,204	1,452	16,806
Totals, timber, square..... "	68,713	1,793,183	48,339	1,250,268	42,793	1,068,742	44,774	1,149,534	53,928	1,438,844
All other, unmanufactured.....	.....	820	.....	1,600	.....	36,520	.....	56,706	.....	484
Totals, wood, unmanufactured.....	.....	12,140,746	.....	10,024,123	.....	11,171,282	.....	12,061,106	.....	11,124,335
Wood, manufactured:—										
Household furniture.....	.....	47,953	.....	55,661	.....	49,602	.....	24,777	.....	44,846
Doors, sashes and blinds.....	.....	105,829	.....	56,985	.....	24,116	.....	9,963	.....	13,462
Matches and match splints.....	.....	82,518	.....	53,514	.....	95,539	.....	83,611	.....	10,332
Spool wood and spools.....	.....	22,326	.....	40,778	.....	81,649	.....	96,395	.....	55,122
Wood pulp:—										
Chemically prepared.....Cwt.	13,660	21,624	139,540	342,446	21,094	42,252	4,113	8,219	756	1,920
Mechanically ground..... "	973,598	463,575	1,529,029	742,274	1,682,143	888,898	958,765	488,709	1,295,427	672,441
All other wood, manufactured.....	.....	242,699	.....	190,092	.....	214,309	.....	244,530	.....	220,572
Totals, wood, manufactured.....	.....	986,524	.....	1,481,750	.....	1,396,365	.....	956,204	.....	1,018 695
Recapitulation.										
Wood and manufactures of.....	.....	13,127,270	.....	11,505,873	.....	12,567,647	.....	13,017,310	.....	12,143,030

Wood Consuming Industries of Toronto

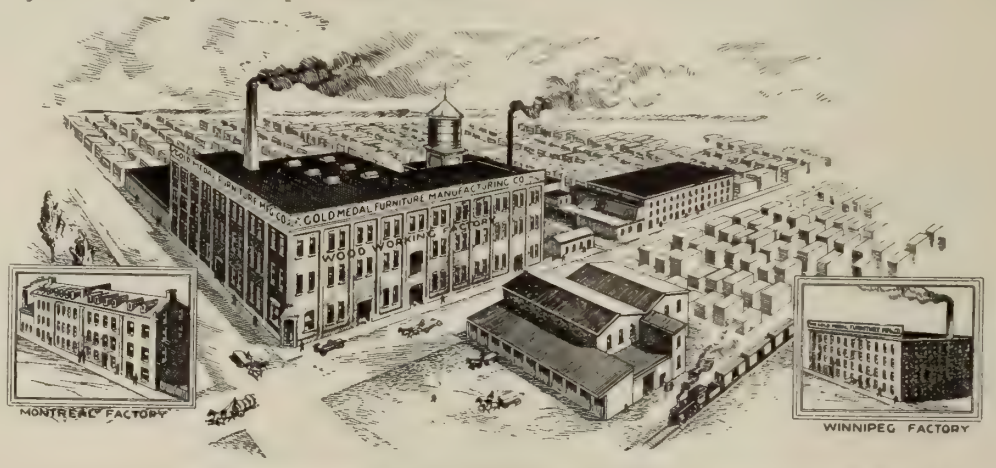
No. 1—A Furniture Manufacturing Company Which Converts 4,000,000 Feet of Lumber into Bed Frames, Couches, Etc.—The Gold Medal Furniture Manufacturing Company, Limited

Toronto, as the capital city of the largest lumber producing province of Canada, is naturally an important point both for the distribution and consumption of lumber. A great deal has appeared in these columns dealing with the distribution of lumber from Toronto. As a consuming centre however, its importance is, if anything, even greater. The present article, and others which are planned to follow, will deal with this feature of Toronto's lumber trade and describe a number of the important industries located at Toronto, which use lumber extensively as a raw material for manufacturing.

One of the most obvious uses to which lumber is put in the production of a finished article is as a raw material for the manufacturing of furniture. There are a number of important furniture factories with headquarters and plants at Toronto. Among these the Gold Medal Furniture Manufacturing Co. occupies an important position on account, both of the extent and variety of their output and the excellence of their finished products. The chief lines of furniture produced by the Gold Medal Furniture Manufacturing Company, are parlor chair and couch frames, diners, davenport and bed frames. "Gold Medal" products of this nature are favorably known throughout Canada, as all the best furniture dealers in the country make them a special feature in their stocks.

W. J. McMurtry, President

The head office and largest factory of the Gold Medal Furniture Manufacturing Company, Limited, are situated at the corner of Van Horne street and Bartlett avenue, Toronto. The company also own branch factories at Montreal and Winnipeg and have a warehouse at Vancouver. An additional factory has recently been purchased from the town of Uxbridge. This factory will be in operation early in 1913. The necessity for additional manufacturing space has been forced upon the company by their steadily increasing business, and the plant at Uxbridge is favorably situated owing chiefly to its proximity to the factory at Toronto. The Uxbridge factory will be devoted to the woodworking department which will be transferred from Toronto under the management of Mr. Robert Wright, the present superintendent of the Toronto factory.



Toronto, Montreal and Winnipeg plants of the Gold Medal Furniture Manufacturing Co.

Mr. W. J. McMurtry, President and Managing Director of the Gold Medal Furniture Manufacturing Company, Limited, founded the company in 1890 on its present site, and has been identified with it since that time. He has in fact been the moving spirit in the business and it is due to his efforts that the affairs of the company are in so satisfactory a condition. The company is a close corporation, the stock being in the hands of five or six people, of whom Mr. McMurtry, is the chief stockholder.

Output of the Company

The quantity of lumber used annually by the company is in the neighborhood of four million feet. About one and a half million feet of this is maple which is consumed, chiefly in the manufacture of spring bed frames, which are made entirely of maple. The other 2½ million feet consists of oak, birch, elm, ash and mahogany. The birch and mahogany are manufactured into parlor frames. Oak is used principally for davenports, couches, easy chairs, and mission furniture; and elm enters largely into the manufacture of mantel beds or folding beds which have the appearance of a mantel and are extensively sold in the northwest.

A trip through the Toronto factory of the Gold Medal Furniture Manufacturing Company, Limited, is an interesting experience. After visiting the various departments, seeing the working of the different machines and having the processes explained by the superintendent, Mr. Robert Wright, the visitor can understand how the high standard of quality of "Gold Medal" furniture has been attained.

To follow the lumber from its arrival at the private siding of the company until it leaves it again as a finished article of furniture is most instructive. The first process is the drying. The lumber is taken from the cars directly into the drying kilns, which have a capacity of 50,000 feet per week. It is then placed on cars and taken to the cutting-up departments, which are situated on the ground floor. In these departments the rough work is done, i.e., the lumber is cut to proper lengths and widths, moved on to the stickers, jointers and planers, and assorted

Chair in "Period" Design

Solid Cuban Mahogany Couch in "Louis XV" style

Solid Cuban Mahogany Chair

approximately as to size. An elevator takes this material to the second floor where the edges are finally jointed, after which it is glued up and finished through a Berlin surface planer. The lumber is then taken to the band saws, cut to the proper suites and shapes, and passed to the shaper where it is shaped on forms to the correct size.

The next operations are trimming and boring and the furniture is now ready for the sanding department, where it is sanded and cleaned up properly before going to the assembling rooms. After assembling, the furniture is again put on the elevator and sent to the third floor to the finishing department. In this department the articles are stained and receive their first coating before being delivered to the varnishing department where they receive from three to five coats of varnish. The varnish having dried, they are rubbed and polished ready for the upholstering department. The upholstering department is near the shipping department, so that the furniture does not have to be moved more than is absolutely necessary.

Uxbridge factory of the Gold Medal Furniture Manufacturing Company

All the machinery and equipment in the factories of the Gold Medal Furniture Manufacturing Company, Limited, is of the latest pattern, and they have no hesitation in scrapping anything which is getting out of date. They also take every precaution to obviate accidents to their employees by protecting their machinery as much as possible. In addition to this, all the machinery in the factory is provided with the fan system for removing dust and shavings. A description of some of the special machinery and equipment noticed is of interest.

Special Machinery Installed

A machine for making couch feet and corner blocks for couches has been invented by the superintendent of the factory, Mr. Robert Wright. This ingenious machine not only makes the couch frames 50 per cent. stronger, but also enables the company to ship the couches in the k.d. state, thus saving half the freight to the consumer. On some of the furniture fine carving is done; for which remarkable carving machines are used. The Symonds carvers, which carve two or more pieces at the same time, do more accurate work than can be done by hand carvers and at half the cost.

A bending machine, which consists of hollow plates filled with steam, can bend and dry their chair backs in one operation in the short time of twenty minutes. This machine is also much more economically than the older types, as it handles successfully a large proportion of backs which would have been broken on the old machines.

Another machine which is giving good results is the Berlin Continuous Feed Jointer. This jointer does the work of six machines, one of its best points being that the operator is protected from risk of accident. A Berlin Finishing Surface Planer turns out fine work and does away with the old method of chipping out. It also saves half the cost of sanding. A new drying room which has been recently installed in the finishing department by Pratt & Lambert, of Buffalo, has proved a great time saver. In this room from 12 to 15 parlor suites can be dried at one time, a temperature of from 120 to 130 degrees being used. By the old method of drying, from 15 to 20 days was required.

Fire Risk Reduced to a Minimum

As a precaution against fire, the sprinkler system is installed throughout the office and factory. In addition to this, a volunteer fire brigade has been organized among the employees. A 500 gallon force pump is always ready and a plentiful supply of water is provided by a tank on the building, which has a capacity of 20,000 gallons. A surplus supply reservoir holds an additional 25,000 gallons. All the power which is required throughout the factory and office is supplied by means of three boilers and a 270 h.p. Wheelock engine. The Toronto factories occupy a floor area of 130,000 square feet.

The new factory at Uxbridge is equipped with the latest improvements. One of the newest "Morton" kilns for drying lumber, with a capacity of 25,000 ft. per week has already been installed. As at Toronto, the sprinkler and fan systems are in use throughout. The company own a private siding on the G. T. R.

In addition to the products already mentioned, the Gold Medal Furniture Manufacturing Company, Limited, are large makers of mattresses, "Hercules" bed springs and steel couches. Ingenious and up-to-date machinery is used for threading these "Hercules" springs.

The present total staff of the company is 225 and it is expected that an additional 100 men will be engaged for the new factory at Uxbridge at the beginning of the year.

Our illustration No. 601, shows a chair of solid Cuban mahogany, "Period" design. The chair and couch No. 430 are also of solid Cuban mahogany, Louis XV. style.

Enemies of the Larch Sawfly

The almost total destruction of the tamarack, or larch, which took place throughout eastern Canada almost 30 years ago was caused by an insect, the larch sawfly. It appeared again about eight years ago and in its spread westward it is repeating its former devastation on the younger tamaracks.

To all who are interested in our forests the appearance of a comprehensive account of this insect "The Large Larch Sawfly, with an account of its Parisites, other Natural Enemies and Means of Control," by the Dominion Entomologist, Dr. C. Gordon Hewitt, will be welcome. This has been published by the Dominion Department of Agriculture as Entomological Bulletin No. 5 and Bulletin No. 10 of the Second Series of the Experimental Farms Bulletins, and may be had free, on application to the Publications Branch, Department of Agriculture, Ottawa.

Dr. Hewitt, has studied the life-history, habits and means of control of this injurious sawfly, both in England and North America. In England, it was found that the natural enemies, especially parasitic insects, effectively gained control of outbreaks of the insects. Other natural enemies were mice and birds and a system of bird encouragement was started on a large scale. The devasting spread of the sawfly in North America was due to the comparative absence of the natural means of control. Several important species of parasites have been discovered and have been studied and described. To increase the number of natural enemies of the sawfly, attempts are being made to introduce and establish in Canada parasites which were discovered in England and which appeared to control the pest here. An account of these experiments and of the methods devised to encourage the birds and other means of control are described in this bulletin, which consists of forty-two pages and contains twenty-six figures, including a colored plate.

Small Fire Loss During 1912

Only 76,000,000 feet of standing timber—less than one-seventieth of one per cent. of the 500,000,000,000 patrolled—was destroyed by forest fires in the season of 1912 in territory represented at the annual forest fire conference of the Western Forestry and Conservation Association. This statement was made by Forester E. T. Allen, who manages the work of the Association which embraces California, Oregon, Idaho, Montana, Washington and British Columbia. Mr. Allen said that this record was as much the result of fortunate weather conditions as of preventive measures. The association spent $200,000 patrolling forests last summer.

Mr. Alexander MacLaurin, of the Campbell-MacLaurin Lumber Company, Montreal, has undergone an operation for appendicitis. Mr. MacLaurin, who is in the Western Hospital, Montreal, is progressing very favorably.

The Sawmill as a Colonizing Factor

Importance of the Lumbering Industry to a Newly Settled Country—Description of the New Ontario Colonization Company's Operations

Willis K. Jackson, Buffalo, N.Y.

An interesting and most unique undertaking in the way of carrying out a large colonization scheme in connection with the development of an important lumbering industry is at present being worked out in New Ontario. About 33 miles west of Cochrane, Ont., on the shore of the Mattagami river, which at that point is about 530 ft. wide, are located the headquarters of a colonization company known as New Ontario Colonization Co., Limited, with whom is associated Mr. Willis K. Jackson, the well-known lumber manufacturer of Buffalo, N. Y. The work which is being undertaken is one for which the comeral of its members have carried pany is especially fitted, as sevout similar undertakings with success in Michigan and other parts of the Northern States.

The company have established their headquarters in the city of Toronto and we are informed that they are practically a Canadian concern, as the majority of their members are citizens of Canada. Mr. Willis K. Jackson, whose portrait is published herewith, is the most prominent of the United States citizens who are interested and being a wealthy man and having had considerably practical experience in lumbering and colonization work, will be a leading spirit in this enterprise. Although a United States citizen by birth, Mr. Jackson has for many years past spent the greater portion of each year in Canada, being the owner of a splendid farm and home at Niagara-on-the-Lake, Ont.

Practically speaking, the proposition is simply one of colonization, although it involves an extremely interesting lumber manufacturing business. The Government of Ontario, realizing the importance of attracting a good class of settlers to the excellent clay lands which have been found in New Ontario, agreed with the principals of this New Ontario Colonization Company to place them in possession of two townships, in return for which they are to put in a minimum of sixteen settlers a year. They are given the right to make such disposition of the timber as they see fit and they are given possession of the lands, to sell to settlers. The attraction of the proposition from the settlers' point of view, lies in the fact that the company, in order to make its land valuable, is undertaking extensive works of improvement. This has already involved the construction of good roadways through the two townships. The company also have undertaken to buy from the settlers everything which they have to sell, logs, pulpwood, farm produce, etc., and they have agreed to carry the settlers along financially until they are able to support themselves. It will be seen therefore, that from the settlers' point of view, the proposition is an attractive one. If he were to buy land

View of Lumber Yards—Annex in Background

in some other district from the government at 50c an acre, he would, in all probability, be isolated from all companionship and far removed from a profitable market for his produce.

The land in the two townships is of an excellent quality, the equal, it is said, of anything to be found in Western Canada, and those who are acquainted with the district state that there is no possibility whatever of a settler failing to make good unless he is lazy. The company have not, as yet, placed anyone upon these lands. They only secured them during the past summer and they have considered that it would be better to wait until next spring before seeking to attract any settlers. The interval in the meantime is being devoted to the construction of roads, the erection of the houses which are necessary for the company and its employees and a few houses for prospective settlers. In this way they are making certain that they will be able to take care of settlers from the time when they commence to arrive.

Erecting a Modern Sawmill

In order to furnish the settlers with anything which they may need, the company have established a good store and already have in operation a small sawmill. Another sawmill is being erected, of a permanent type, which will be the equal of anything of its kind in Canada. The first sawmill erected by the company, which has been in operation during the last three months, is a circular mill and was furnished by the E. Long Manufacturing Co., Orillia, Ont. It is equipped with a two saw edger and a two saw trimmer, and is housed in a building 25 ft. by 75 ft. It is cutting from 10,000 to 12,000 ft. of lumber per day and from 10,000 to 20,000 lath.

The new mill which the company are now erecting will be equipped with a double cutting 8 ft. 12 in. steam tension band mill manufactured by the William Hamilton Co. of Peterboro, Ont.; a 54 inch band resaw manufactured by the Berlin Machine Works, Hamilton, Ont.; three boilers and engine manufactured by the William

Circular Mill Sawing its first Log

Circular Mill after running a month

Main Boarding House under Construction

Boarding House Annex—Accomodating 60 People

Hamilton Co., the boilers being 16 ft. by 72 inches, 150 h.p. The transmission machinery, edgers, trimmers, etc., are being supplied by the E. Long Manufacturing Co., Orillia, Ont. The mill will have a capacity of from 50,000 to 60,000 ft. per day.

A wood mill and rossing machinery for converting the small logs into pulpwood will be installed by the Waterous Engine Works Co., Brantford, Ont. This machinery consists of a steam 3-arm log loader, semi-automatic cutting-up rig, pulp conveyor, sawdust and refuse conveyors, piping, etc., for boiler room.

In connection with the mill there will be a planing mill and sash and door factory, band mill, matchers and surfacers which will be supplied by the Berlin Machine Works Co., Hamilton, Ont.

The planing mill will be erected during the coming spring and will be up-to-date in every respect. It will also be equipped for the manufacture of boxes.

When the band mill, planing mill and sash and door factory are in operation, the company will be able to supply settlers with every possible requirement in the way of lumber and general house building materials. They will, in fact, cater not only to their own settlers but to the markets of the whole north country.

As an indication of the spirit in which the company are tackling this proposition, it may be stated that the arrangement with the Ontario government was made last June, and that inside of the first week after the signatures to the contract had been completed, they had sent up several carloads of supplies and horses. Within a few weeks of that time they had 250 men at work clearing land, building houses, mills, etc., and about 12 families who had come there with a view to becoming settlers as soon as the roads could be prepared for them to get into their lands. When the first batch of workmen arrived on the scene they had to cut down trees in order to make room for the first tent that was pitched. In 90 days the company had comfortable quarters provided for their 250 employees.

An Attractive Agricultural Proposition

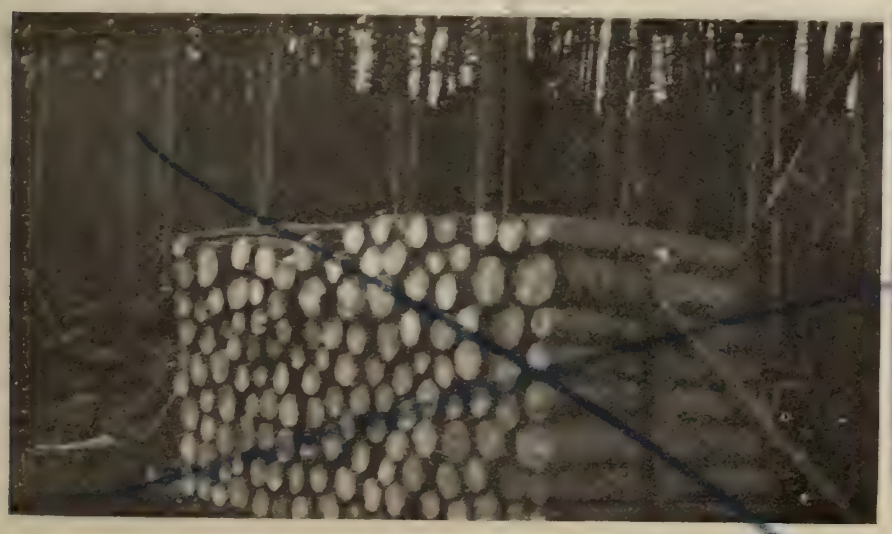
The two townships controlled by the company contain about 100,000 acres of very fine agricultural lands upon which there is a thick growth of spruce timber with a small amount of whitewood and balm of Gilead. Although the country is considerably farther north than the older part of Ontario and has a very cold winter, this is no drawback to it from an agricultural point of view. On account of the long days and short nights of the summer time there are more growing hours per day than in the more southern parts of Ontario and it is believed that as the country becomes settled and cleared the rigour of the winters will be considerably lessened. Letters received from members of the company which were written on November 25th, stated that at that time there was as yet no snow.

It will be seen from the above description that, primarily speaking, the proposition is one of colonization and that, as a lumbering proposition alone, it would scarcely be profitable. Nevertheless, there is plenty of timber to supply all the lumber that will be necessary for the building up of the community. The product of the small mill already in operation consists mostly of scantling, boards, etc. In order to secure large timbers for the big mill the company have had to go pretty far afield. Not a single board however, has been brought in for erection of the company's buildings, with the exception of such manufactured articles as window sash, finished flooring, etc. All the machinery and supplies which the company are taking into the country are being purchased in Canada. One of the chief policies of the company in fact, is to spend every dollar of its money in Canada.

It will be seen from the above description that the whole proposition is one of much interest of lumbermen. It will demonstrate with much force the fact that the timber resources of a country even though they be small, comparatively speaking, furnish a most important raw material for the up-building of a community and that a country which is well wooded with timber of any sort that can be turned into lumber, is far preferable to a country of equal agricultural promise which contains no timber growth. In the early days of the settlement of the prairies of western Canada, it was thought that these lands were especially attractive because no work had to be done in clearing. A more modern and businesslike view of the situation teaches settlers that a land with timber growing upon it, and which has good agricultural possibilities, is preferable to anything in the prairie line, because it affords them cheap raw material for the construction of their dwellings.

The accompanying illustrations give an excellent idea of the work which the company has carried out up to date. In one of the pictures will be seen the little sawmill which has been in operation during the past summer. This saw mill was set up upon the ground without any covering. The logs were brought to it, out of which it manufactured the lumber that was used in erecting the building to house the machinery.

Another illustration shows one of the company's boarding houses in course of erection giving an excellent idea of the substantial manner in which the buildings are constructed.



A Cord of Pulpwood—Timber Growth in Background

The Company's First Farm House—Eight Rooms and Kitchen

Sash and Door Men Discuss U.S. Exports

Committees Appointed to enquire into the means of Eliminating the Menace—Proposal to Adopt Grading Rules

The Ontario Sash and Door Association held an important meeting at the King Edward Hotel on December 13th, at which the principal matter under discussion was the great amount of United States doors which are being imported into Canada. Mr. W. D. Cargill, Cargill, Ont., occupied the chair, with Mr. F. W. Brennen, Hamilton, Ont., as secretary. Those present were as follows: Mr. W. D. Cargill, H. Cargill & Son, Cargill; Mr. F. W. Brennen, M. Brennen & Sons Manufacturing Company, Limited, Hamilton; Mr. G. S. Siebert, Mr. F. P. Potvin, Georgian Bay Shook Mills, Midland; Mr. W. J. MacBeth, Parry Sound Lumber Company, Toronto; Mr. O. W. Rhyness, Mickle Dyment & Son, Brantford; Mr. R. A. Rastall, R. A. Rastall & Company, Toronto; Mr. Hugh A. Rose, Toronto representative of Canadian Western Lumber Company, Fraser Mills, B.C.; Mr. R. R. Gardiner, P. W. Gardiner & Son, Galt; Mr. G. P. Davidson, Estate of James Davidson, Ottawa; Mr. H. A. Currie, Wilson Bros., Limited, Collingwood; Mr. A. E. Lloyd, C. Lloyd & Son, Wingham; Mr. G. Mustard, Lansdowne Lumber Company, Toronto; Mr. R. E. Truax, Truax & Son, Walkerton; Mr. C. M. McCabe, McCabe Bros., Tottenham; Mr. R. Stewart, Jr., R. Stewart & Company, Guelph.

Mr. Brennen opened the discussion by outlining the situation and stating that the imports of United States doors had induced some Canadian manufacturers to try to compete with the imports by reducing the prices on their own product. The purpose of the meeting, he understood, was to discuss means of meeting the competition or to adopt steps for reducing the quantity of imports.

Mr. Gardiner reported on the work of the committee appointed at the last meeting. Enquiries had been made of the Department of Customs at Ottawa and it had been found that doors were not separately classified in the customs statistics. According to other information they had received, however, he was convinced that pine doors were being delivered in Toronto at $1.80. This price was impossible without dumping; i.e., selling to Canadian markets at less than the price asked in the United States markets. There was no question that if Canadians could not produce a sufficient quantity of doors for the Canadian markets, United States doors would have to be imported. But they had a right to enquire whether the United States competition was being conducted fairly. The important thing to be done now, was to induce the government at Ottawa to classify the imports in such a manner as to make it possible to find out just how many doors were imported.

Better Organization Essential

Mr. Siebert emphasized the importance of better organization. A membership committee should be appointed to take in hand the membership of the association and get in certain other manufacturers who apparently were not represented and who ought to be fighting along with them. These men were manufacturing a lot of doors and could give a great deal of help. The organization would then be more complete and they could decide on a plan of campaign. The question of the British Columbia fir door was entirely aside. It was not Canadian competition that they were fighting. They were fighting the foreign door. If they could eliminate the United States door the trade conditions would change so that British Columbia door manufacturers would not be a factor in the east. The United States door would be kept out of Western Canada and the British Columbia manufacturers would have all they could do to handle the western trade.

Mr. Stewart was of the opinion that lumber manufacturers were supplying too low a grade of lumber at too high a price. United States lumber of a far better grade than Canadian was laid down here and a door manufactured from it could be made at thirty-five cents less than from the Canadian lumber. Mr. Rastall stated that he could buy California pine at $37.75 and the waste from this was much less than from lumber bought from Canadian manufacturers at $46. He thought that Canadian manufacturers were asking too much for their lumber and instanced a case where he had been offered lumber at $46, and, on his refusing it, the manufacturer had finally sold it to him for $35. He considered that this was hardly a fair deal.

The Importance of Standard Grading

Mr. W. J. Macbeth, of the Parry Sound Lumber Company, Toronto, stated that this has brought the matter down to the question of a standardization of grading rules. He suggested that the door manufacturers should assist lumbermen in getting this standardization. The good United States lumber which had been mentioned was all of one grade and this was surely an argument in favor of Canadian standardization.

Mr. Hugh A. Rose, Toronto representative of the Canadian Western Lumber Company, Fraser Mills, B.C., thought that the improved condition in the United States trade would soon provide good markets there for their own doors. The same thing had occurred in connection with lumber dressed on one side. The great imports of late years, had recently ceased on account of the improvement in the United States markets.

Mr. Brennen reported that from the Washington Department of Commerce he had been informed that $576,000 worth of doors had been exported to Canada during the twelve months endieng June 1st, 1912. The opinion of members present was that the imports were greater than this.

Mr. Brennen thought there was not much to fear from the United States doors. Their quality was poor. They often rattled like a skeleton in a haunted house. The Canadian manufacturers of doors would only have to get together in a more businesslike manner. There was lots of trade to be had, and so far as he knew, customers were commencing to refuse the foreign doors. He rather believed that there were as many favorable conditions as unfavorable .

Mr. Truax did not think that an appeal to the government for increased duty would meet with any favor. The only point to approach them on was the question of dumping. Owing to the fact that the Ontario and Quebec lumbermen had not any standard rules of grading and that the best grades of lumber were shipped to England, he was compelled to go to the United States for lumber. He stated that out of seventy-six cars which he had bought in the United States only one was not up to grade, whereas he could rely on the grade of only one Canadian manufacturer.

He thought that it would be better if door manufacturers could buy direct from the mill man as the middleman was often responsible for the unreliability of grades. He mentioned a case in which he had bought from a middleman and, as the lumber was not satisfactory, he had approached the mill man and been shown the invoice to the middleman. The latter had re-invoiced it to him as a higher grade.

Mr. Siebert suggested that the Ontario Sash and Door Association draw up rules of grading and buy from the manufacturers only on those rules.

Imported Doors a Menace

A resolution proposed by Mr. Siebert was then passed, stating that the importation of United States doors was a menace to Canadian door manufacturers and that steps should be taken to restrict the importation.

Mr. Gardiner said that Mr. MacBeth's statement about Canadian plants was fully justified. But, he thought it was an impossibility, considering the cost of raw material in Ontario, to make doors to compete with the United States door. It was not a question of fair competition. It was a question of dumping.

Committee Appointed to Investigate

Mr. Siebert presented another resolution, that a committee of manufacturers exclusively be appointed with full instructions to take the necessary steps on behalf of the association, to restrict the importation of United States doors. This motion was also carried.

The committee was appointed as follows: G. S. Siebert, C. Lloyd, R. R. Gardiner, G. P. Davidson, and W. D. Cargill, with Mr. Cargill as chairman.

Mr. Siebert also moved that a committee of three be appointed to draw up a set of rules for grading for use in buying lumber for sash and doors.

Mr. MacBeth presented a copy of the rules which he and others with the assistance of sash and door men had drawn up to present before the Canadian Lumbermen's Association a year ago. These rules were discussed extensively by the members present.

Mr. MacBeth suggested that rules such as these should be adopted and that if the sash and door men would do it, the situation would be improved. If the sash and door men would insist upon accepted grades, the manufacturers would have to fall into line.

Mr. Siebert suggested that a committee with Mr. MacBeth as chairman be appointed to take up the discussion of these rules with **all** members of the association, and to have copies of them submitted to door manufacturers, with a request for their views, the committee to report at the next meeting of the association.

The other members of this committee were Mr. A. Rastall and Mr. R. E. Truax. It was decided to hold the next meeting on January 24th, 1913.

The Foreign Door Problem

Interesting Letters Upon The Importation of United States Doors

An Injustice to Canadian Door Manufacturers

Burks Falls, Ont., Dec. 3rd, 1912.

Editor Canada Lumberman:

With regard to the dumping of doors from the United States into Canada, we are of the opinion there can be no question of the injustice of it. It is also certain that the Canadian manufacturer needs all the protection which can be afforded under existing conditions.

Canadian manufacturers can equal American without a doubt; we submit this has often been proved. But this could not be expected under unequal conditions. And we submit that to-day conditions between Canadian and American door manufacturers are very unequal. A few of the disabilities against the former may be seen at a glance from the following diagram.

Americans Have	Canadians Have
1. Cheaper labor.	1. Dearer labor.
2. More experienced labor.	2. Less experienced labor.
3. Longer established industries.	3. Newly established industries (comparatively).
4. Larger markets.	4. Smaller markets
5. Greater division of labor possible by larger markets.	5. Lesser division of labor compelled by smaller markets.
6. Lower freight rates.	6. Higher freight rates.
7. No inter-state restriction.	7. Trade-retarding inter-provincial laws.

To-day it is practically certain that our American cousins are prepared to do business at a loss to gain access to Canadian markets. Then again, as to dumping; it is a conceded fact that American concerns do not run continuously for years together; and any business man knows what happens when their stocks become overstocked, something disastrous to the most convenient foreign market, without a doubt.

Considering the above we submit the Canadian door manufacturer is very much in need of all the protection which can be given against the disabilities enumerated above.

Yours truly,

THE KNIGHT BROTHERS CO.,

Henry Knight.

Grading Difficulty at Root of Door Trouble

Guelph, Ont., Dec. 5, 1912

Editor Canada Lumberman:

Your favor of Dec. 2nd received, re the importation of doors from the United States. We would like to say in this connection that probably our ideas may be different from the other manufacturers, but we place the whole blame on the lumber manufacturers of Canada. Up to within a short time ago, for the last five years, we were unable to make doors at a profit, for the following reason: that the mill men and the middle men put up a grade of lumber of No. 3 cuts and better and charged us from $43 to $45 a thousand for it. Fifty per cent. of this lumber is nothing more nor less than a mill cull and a box. The door manufacturers have been up against this problem for years. Our relief came when we started to import California and western pine. We are laying this material down without any culls or box for $36 a thousand. This places us exactly in the same position as the American manufacturers, and we find no trouble in competing.

We might state that we have heard considerable discussion about the grade of No. 3 cuts and better, which they are now putting up. We tested a well known lumberman in Toronto, and he assured us that a new era had arrived and that they had got over their bad habit of shipping mill culls and box for cutting up lumber. We tested out his word and behold the new era had not arrived; the same old mill culls and the same old box, if anything a trifle worse.

We are firmly of the opinion that if the lumbermen would give the manufacturers a chance, the importation of American doors would never have taken place.

Yours truly,

Robert Stewart, Limited.

U. S. Doors Being Dumped in Canada

Cargill, Ont., Dec. 3rd, 1912.

Editor Canada Lumberman:

Re American Doors

The recent importations in large and small quantities of American doors is a matter of grave concern to the manufacturers of such in Ontario, and has been occupying the attention of the Ontario Sash and Door Association to the virtual exclusion of all other matters.

Unfortunately it has been found impossible to get figures from any source as to the exact quantity imported, but it is conceded by those most interested and who are in a position to know whereof they speak that these doors are being distributed throughout Ontario in quantities large or small as desired, and at prices much below the cost of production here, in fact will pay little more than the cost of the material.

It is expressing it mildly to say that this is a very serious condition to face for those who have invested their all in this business in good faith, as it simply means ruin for exclusive manufacturers of doors. The industry is an important one, a large employer of skilled labor, and never has been in the class productive of millionaires, from which one may deduce that the profits derived therefrom (if any) have been of a reasonable nature.

We hear at times a good deal about "Canada for the Canadians," but unless something is done to remedy this condition it will be a case of just so much more of "Canada for the Americans"; and don't you think they have already had more than they were properly entitled to? Why should it be necessary to sacrifice this particular line of industry while others are protected in their home market?

We concede the fact that doors can be made at a less cost by American manufacturers in large specialized plants using automatic machinery and cheap foreign labor, but as yet we have not a sufficiently large market to warrant such plants and have no wish to duplicate their conditions of manufacture, which savor strongly of the sweat shop.

I believe the trouble is a case of dumping their surplus product, and we have laws to protect us against such; but the difficulty lies in the matter of producing proof as I understand all sorts of schemes are devised for the purpose of evading the law.

Yours truly, W. D. CARGILL.

A Case For a Higher Duty

Editor Canada Lumberman:

To treat of any subject which involves, or implies international action, or consideration, suggests at once its importance and difficulty. We may all be agreed upon its importance, and yet be reasonably in discord as to the difficulty. The phase of this question to be dealt with here, is the "Importation of American Doors into Canada." Let us for the time being lay aside our party pride or prejudice, and consider a presentation of conditions as we find them existing now.

Our needs or wants are governed or gratified largely by our ability to buy or exchange. Where honesty and fair business dealings are recognized, there can be no good ground for jealousy or criticism. The needs of our Dominion, by reason of rapid development, have been large. At some points the supply has not been equal to the demand. This can be applied both to humans, and the material things that they make or require.

In our particular line an honest effort has been made to keep the country supplied with the products of our factories, doors, sash and columns, etc. But the ever watchful eye of our foreign competitors has been keen to observe the opportunity. In fairness, let us admit, that in a measure this has helped. But now we have the aftermath. It is not a question of need, want, or fair competition. It is simply a matter of surplus stock and dumping. Those conversant with the business need no enlightenment on this point.

We do not propose to appeal to the loyalty of anyone, expecting to do business on that alone. What we do propose is to give as good an article, at approximately the same price. In this line of business prompt shipment, and being reasonably near the seat of supply count for much. This, we have in our favor. It is not prejudice which makes thoughtful, intelligent, business people desirous of giving preference to home made goods. The progress and prosperity of our country depend altogether upon what we as a people produce. If we are to be merely retailers of what our friends across the line manufacture, then our present progress will be short lived. It is short sighted policy on the part of anyone to be caught fighting the battle of foreign competitors. This is exactly what we find existing in the door business at the present time in Canada. The dealers are being used merely as tools to dispose of the factory surplus.

Consciously or unconsciously, they have been led into an uncalled for cut-throat competition. We have no reason to believe that any one

has had the desire to make any unfair profit out of this business from the manufacturer's end. In 10 years the price of lumber has almost doubled. The price of doors is practically the same. This, in spite of the fact that wages have advanced from 25 per cent. to 50 per cent.

Modern methods of manufacture have taken care of a certain percentage of this, but the investment is necessarily greater, and competition keener.

There is no cry of distress, but we certainly propose to protect our interests. This can only be done by a realization on the part of both those who make and those who sell or use, that our individual prosperity, the welfare of our people rests largely, if not altogether, upon the support we give each other. You can not make for progress by depriving the people of a nation of work which they can perform: nor by using the goods of another country's production, when the same can be obtained at home.

Were it a case of exhorbitant price or profits, the situation would be different. When a few cents will lead one from loyalty, then may we with consistency doubt the sincerity of any professed pride in what we as a people can, or hope to, accomplish.

When foreign importation is necessary, it can fairly be termed beneficial. When it is unnecessary, it is, and will be, hurtful to the whole community. It is a blow to the very best fundamental principle of a country's real prosperity.

We hear much of the pauper pay of other countries; and much of this talk from the source of supply of these doors, which give cause for action on the part of Canadian manufacturers. We pay more for the labor involved in the manufacture of our goods than does the foreign manufacturer. This, in a measure, explains why our market is being mudded.

It is essentially unfair competition for the very good reason that because of a fight among themselves, the price of doors on the American side has got to a point where loss on the article is a recognized fact.

Then we have another enemy to contend with. He is no foreigner, presumably, but has chosen for his mission the demoralization of the trade, and the hurt of the home manufacturer.

We, as manufacturers, do not object to fair competition at home, or from abroad; but when the demoralization of the trade seems to be the object in view, there is real and just cause for united action. The impost of a higher tax will have to be considered as the true remedy for this condition.

To this end we will work, and united effort, strengthened by reason of the justice of the request, will accomplish this.

A Canadian Manufacturer.

Not Enough Canadian Plants

Toronto, December 9, 1912

Editor Canada Lumberman:

Replying to yours of the 29th ult. in reference to the importation of manufactured doors from United States into Canada; as we do not manufacture doors it is a subject that we are not vitally interested in, although personally we prefer to see these goods manufactured in our own country. We believe that probably one reason which accounts for the large number of doors that are being imported, is the fact that our Canadian manufacturers apparently are unable to fill their orders in a reasonable time. We have had occasion to purchase doors to use in our business and we have had great delay through our inability to secure them in a reasonable time. It would appear to us that until the door manufacturers inC anada are prepared to look after their orders and to supply them in a reasonable time, there is very little need to raise a cry about the importation of doors from the United States. We think that the first move that manufacturers should make is to get in the place where they can handle the business and then to take steps to, if possible, prevent further importation.

Yours truly,

The W. Booth Lumber Co., Ltd.

Duty Ought to be Higher

Barrie, Ont., Dec. 5, 1912

Editor Canada Lumberman:

We are not extensive manufacturers of sash and doors, but we find ourselves injured by the very low price at which American manufacturers are sending doors into Canada. It pays us better to buy American doors than to manufacture them, and a great many other dealers who have factories in Canada are doing the same thing now. We think that the duty on doors should be increased when entering Canada otherwise door manufacturers here will have to go out of business.

Yours very truly,

Mickle, Dyment & Son.

A Western View of Door Situation

Col. A. D. McRae Thinks Door Men Must Change Tactics—Fine Outlook for Lumber Trade

Col. A. D. McRae, vice-president and general manager of the Canadian Western Lumber Company, visited Toronto during the first week of the present month. Col. McRae and others interested in the company have been making a tour of inspection in the United States for the purpose of studying the methods of door manufacturing used by some of the largest door makers in that country. The Canadian Western Lumber Company are erecting a large fir door plant and a fir veneer plant which will be in operation early next March and will turn out one thousand doors on a ten hour run.

Col. McRae is very enthusiastic about the prospects for the fir door business and incidentally has something to say about the general door situation and the importation of doors from the United States which has been troubling the manufacturers of doors in Ontario of late. According to Col. McRae, the fir door is the coming door. Speaking to the Canada Lumberman upon the matter he said: "The fir door is the door that is coming into general use now in the Eastern States and United States fir doors are coming into Canada because there is not a good fir door made in Canada to-day. We are spending $500,000 on a plant for making fir doors at Fraser Mills and as far as I am concerned the protection on doors is all we want. If we cannot compete with American fir doors, with a duty of 25 per cent. we ought to keep out of the business.

"The fir door is coming in here because it is a better door than the others. The pine door is a light door. The fir door comes next to the hardwood door. It has the weight in it and it has the strength. It is also a cheap door.

"For our plant at Fraser Mills we bought the very best machinery. There is not a better plant in the country.

"It is true that we have to pay more for our labor in Canada and more for our lumber and machinery. Our construction costs about 50 per cent. more than in the United States. The duty of 25 per cent. on the doors, however, is quite sufficient so far as we are concerned.

"The year before last was the first time that fir doors were brought into Ontario. To-day one firm in Ontario alone has ordered twenty-five cars of fir doors for next year's trade. My idea is that the whole trade is changing over from pine to fir doors. I have come to this conclusion after visiting all the important door plants on the Pacific coast, in the Mississippi Valley and the Oshkosh plant. Many of the plants in the United States are contending with just what the door men in Ontario are contending with to-day. They are at their wits' ends to compete with the fir door. I believe that what they will have to do here to protect themselves against the United States door is to buy the cut up fir stock from British Columbia and handle the fir door."

Greater Co-operation Required

Being asked to express himself definitely for publication upon the general question of increasing the protection against doors from the United States or enforcing the customs tariff more rigidly than at present, Col. McRae said: "As I understand it, (my information may possibly not be correct), the sash and door manufacturers of Ontario are now purchasing much stock for their sash and doors from American sawmills, and if such is the case, they can hardly look to the active assistance of the Canadian lumber manufacturer for the protection they are seeking.

"I am sure that the sash and door men, if they will join the lumber manufacturer in a general movement for protection from American competition, not only in sash and doors, but in all lumber products as well, can depend upon the active assistance and co-operation of every lumber manufacturer in the Dominion.

"As you know, the western lumber manufacturers have been fighting for years to get a duty on rough lumber, so as to have some protection from American competition. There is no denying that United States rough lumber has been selling for the past two years at less than the cost of production, but notwithstanding this, we have not, as yet, been able to get any protection for our industry, and I do not believe that anything will be accomplished, either for the sash and door interest, or any other wood-working interests until such time as we all join together in a general movement for a higher tariff which will protect not only our branch of the business, but the lumber business as a whole."

Trade Conditions Exceptionally Promising

Discussing trade conditions, Cal. McRae said: "The general lumber trade is in fine condition. I have just come through the prairies and have visited all our retail yards there. I have never seen stocks as low. They have had an exceptionally good month's business in November and the business during September and October was splendid also. I believe November was the best month they ever had in the retail lumber business in Canada. There will be very little lumber

left in the yards when the time comes for spring trade. At present, stocks are less than they have been at any time in the last five years. Stocks at the mills also, I think, are less than they were a year ago, and they were low enough then. That means that practically all the mills have moved their cuts and some of them have done even better.

"Manufacturing conditions in the United States are also good, and as a result United States lumber has temporarily nearly withdrawn from the Canadian markets.

"I do not think the cut will be any greater next year than it has been this year. So far as British Columbia is concerned it will be about the same.

"I never saw so much fall ploughing and breaking ready for crops in Western Canada as I have seen this fall. I expect that next year will see an increase in the acreage in crop of one and a half million in the three provinces.

"Building permits will be very large next year. I believe we will see an increase of 25 per cent. in the quantity of building in the three prairie provinces. I look for an increase of twenty-five per cent. in the demand for lumber. That increase will be in the face of no increase in that means to the lumber trade. If the lumbermen do not make money next year they have no one but themselves to blame.

"Lumbermen in general are looking for an increase of about $2 per thousand in the price of lumber next year. I believe they will get it. In some cases they will get more. There are practically no upper grades on the coast to-day.

Yes there is a good deal of talk about this car demurrage business, but I think it is a good thing. There is no question but that a good many lumbermen have been holding cars too long. So far as I am concerned I do not want to do anything that will make it impossible for the railroads to get the necessary money to carry out the developments which we must meet. Under the conditions which we have to-day I think reciprocal demurrage would be unjustifiable. We have as much trouble with the railroads as other shippers, but one of our troubles is not demurrage."

Important Amendment to Bank Act

Bill Introduced to Permit Banks to Lend Money on Security of Threshed Grain—Would Alter Credit Business

An important bill to amend the Bank Act has been introduced in the House of Commons by Mr. J. A. M. Aikins, M.P., for Brandon, Man. The purpose of the proposed amendment is to permit banks to lend money to farmers upon security of their threshed grain. The bill was introduced on Nov. 26th, and Mr. Aikins being requested to explain it spoke as follows:

Explanation of the Proposal

"Section 88 of the Bank Act authorizes the bank to lend money to a purchaser or shipper of, or dealer in agricultural products on the security of those products, no matter what the quantity may be or where stored; but it does not authorize the bank to lend money to the farmer on his threshed grain, no matter how great the quantity or how well stored. The Act also provides that the bank may lend to a manufacturer of goods, wares and merchandise, on the security of the goods, wares and merchandise; but it does not authorize the bank to advance money to the producer of grain, although it is perhaps the best security that can be given, because so readily convertible into money. The Bill is intended to remedy this by providing that the bank may lend to a person engaged in farming upon the security of his threshed grain, an agricultural product."

Mr. W. F. MacLean—"What about live stock?"

Mr. Aikins—"A great many people desire that the bank should be authorized also to advance money on live stock. I am in entire sympathy with that, but the urgency is not so great, nor are the reasons so apparent. We all know that the farmer needs money, especially the western farmer, immediately after the threshing has taken place, for the purpose of paying liabilities incurred in respect of that threshing, and his other farming operations, and also for the payment of accounts incurred during the summer.

"In the west the period between the termination of harvesting operations and the commencement of the winter is short. For that reason the farmer ought to be permitted to devote as much time as he can to fall ploughing and to preparing for his next year's crop. At present the only way in which he can pay his liabilities which ordinarily amount to perhaps fifty per cent. of the threshed crop is by selling that crop; and, in order to do that, he must during the time I have mentioned haul his grain to market, and that takes up a large portion of his time. This Bill is intended to obviate that, and give him the opportunity of taking his grain to market when he thinks proper. It gives the further advantage that all these loans are made on the pledge receipt, which is a very simple document, and thus obviate the necessity of chattel mortgages, legal and registration fees, the cost of discharges, and such like. It will also obviate the necessity of the farmers hauling hurriedly their grain to the railway stations to be disposed of there, which, as we know, creates congestion, not only at those railway stations, but all along the line. Moreover, it gives the farmer the opportunity of disposing of his grain when he thinks proper and he is best able to judge of the time when it should be disposed of. Meanwhile he can store it without cost on his own farm."

Altering the Credit Business

The main feature of the proposed amendment is one which will commend itself to retail lumber dealers, as it will relieve them of the necessity for carrying their farmer customers until they secure money in payment for their grain. The retail lumber dealer would, in most cases, be glad to be relieved of the necessity for giving the farmer credit. Under present conditions the lumberman has to take the farmer's note and discount it at the bank. Not only does he have to pay the discount, which is a considerable burden in times when competition is keen, but he has also to assume the risk of the farmer meeting the note when it is presented at the bank. If the farmer does not meet the note the bank then comes upon the lumberman for the money. If the amendment is put through the lumberman will be able to tell the farmer to go direct to the bank for his credit.

There is however another feature of the situation which must be carefully borne in mind. Unless some further amendment is made to the Bank Act, there will be no registration of the pledges which the farmers give to the banks when securing credit on their threshed grain. A situation will at times arise when in spite of the act, a farmer will want to secure credit from a retail lumberman and the latter will have only the farmer's word for it that there is no other pledge against the grain. It will be in the power of a farmer to deceive the lumberman or other merchant by securing credit all year on the security of the grain, and at the same time to secure credit from the bank on the same security. When the merchant comes to collect he may find that the bank owns all the security. It may be thought that this is a far fetched objection, based on a situation which is not likely to develop frequently, but it is an objection which will be urged in some quarters and which ought to be studied carefully with a view to preventing the difficulty in advance if possible.

It is understood that bankers are not looking at the proposed amendment with much approval. They are in the position of preferring to have the business of crediting the farmer continued on its present basis. When giving credit it is necessary for a bank to examine the security carefully and they would find it a difficult matter in many cases to obtain reliable information upon the value of grain at some distant point.

In spite of these objections there is much in the proposal to commend it to the careful study of the Minister of Finance and the House of Commons. Its main object is to facilitate the movement of grain and to simplify the business of securing credit for the farmer. On these grounds it ought to commend itself to the House and a means ought to be found of enacting its main provisions while at the same time safeguarding the general merchant.

Jack Pine Suitable For Pulp

That jack pine pulp is entirely suitable for the manufacture of news print paper has been clearly demonstrated at the U. S. Forest Products laboratory, at Wausau, Wis., where experiments have been conducted in co-operation with the American Paper and Pulp Association. The rapid increase in the price of spruce makes the discovery of a satisfactory substitute of great importance at this time. From 1900 to 1909, the price of spruce increased from $4.83 to $9.32, or 93 per cent. In Eastern Canada are large areas of non-agricultural land where the old forest has been cut over and burned over repeatedly, until the more valuable species have been driven out and jack pine constitutes a heavy percentage of the stand. These areas have, in general, been considered as waste lands. It now appears, however, that such lands will take on a new importance and will amply justify the expenditure of money for protection from future fires, in view of the certainty that large revenues may be secured either now or later, from the utilization of the jack pine for the manufacture of pulp. The importance of this timber will necessarily increase with the exhaustion of the supplies of other species within reasonable distances of the markets.

Transmission line poles and cross-arms treated with creosote oil are less liable to destruction by fire than untreated timber of the same kind. This appears to be due to the fact that the free carbon deposited by the burning oil on the surface of the timber affords some protection from the action of the fire. A committee appointed by the National Electric Light Association of New York city conducted a series of experiments on similar specimens of treated and untreated short-leaf pine, and proved conclusively that the latter suffered considerably more damage from the effects of the fire than the specimens that had been impregnated with creosote oil.

Demurrage Charges Greatly Increased

Board of Railway Commissioners Permit Companies to Double Charge for First Day After Free Time—Second Day and all Thereafter $3 per Day

The Dominion Board of Railway Commissioners has decided in favor of granting the application of the C. P. R., the G. T. R., the Michigan Central Railroad and the C. N. R., for an increase in their demurrage charges on freight cars from $1 to $2 and $3. The increased rates will be allowed from December 15th of the present year to March 31st of next year. The railroads asked for $2, $3 and $4 for the 1st, 2nd and 3rd days respectively, after the free time allowed, but the $4 charge was not sanctioned by the Board. The charge of $2 will now be made for the first 24 hours after free time and $3 for each succeeding day. The order is not to apply to cars held in transit at stop-over points under published tariffs which have been filed with the Board.

The Vice-chairman of the Board of Railway Commissioners, Mr. D'Arcy Scott, delivered the finding of the Board, in the absence of Chairman H. L. Drayton who was on a trip to the west.

The Finding of the Board

"It cannot be denied," said Commissioner Scott, "that a car shortage equal to, if not greater than, that of last year is imminent, and unless some steps are taken to secure an adequate supply of cars, traffic will be seriously handicapped during the approaching winter and spring until the opening of navigation.

"It is urged by the railway companies that the unnecessary detention of cars by shippers and consignees not only handicaps the railway companies by depriving them of cars which would otherwise be available for traffic, but also causes congestion by blocking team tracks and private sidings and terminals. It is also contended that at least 50 per cent. of what is called railway detentions, that is, the unnecessary holding of cars in terminals by the railway companies, is due to the blocking of these terminals by the unnecessary detention of cars by shippers and consignees.

"The board is fully alive to the very unsatisfactory methods adopted by some of the railway companies for the handling of freight traffic. It has had its expert officials examine and report on the terminal and transportation facilities of the railroad companies for some time. It has had the railroad companies and representatives of the shippers before it, and has discussed with the former the necessity for increasing the facilities and rolling stock of the railways, in order to overcome the unsatisfactory conditions of affairs, and the railroad companies are, undoubtedly, making an honest effort to relieve the congested condition of freight traffic, by increasing their facilities in the way of enlarging their yards, double-tracking, providing more cars, and adding to their motive power.

"I believe there is much yet for the railroads to do to equip themselves to handle the business of the country properly, but, as I have said before, I am satisfied that they are making an honest effort to do so.

The practice of consignees holding cars and using them for storage or warehouse purposes undoubtedly exists. In many cases it is cheaper for consignees to pay $1 a day demurrage and use the car as a warehouse than to unload the car promptly and store their goods in some other place. Many merchants and traders, whose business has materially increased within the last few years, have not sufficient shed capacity to take care of their goods.

"I am of the opinion that temporarily, during the present shortage of cars, the demurrage charge should be so increased as to insure the prompt release of cars in all cases."

The judgment goes on to give examples of the beneficial results which have attended the increase of demurrage charges on the Timiskaming and Northern Ontario Railway and other lines, and continues:—

"Being of the opinion that the railway companies have made out a good case for a temporary increase of demurrage charges, I have come to the conclusion, bearing in mind the facts above stated, that the increase should not exceed a maximum of $3; I would increase the charge to $2 for the first twenty-four hours and $3 for each subsequent twenty-four hours beyond the free time as provided in our car service rules.

"The railway companies are on record as stating that, if they get this temporary increase, which I think should be granted, there will be very little congestion, and few, if any, delays in the placing of cars. It will now be incumbent upon them to carry out their undertaking. This temporary increase in demurrage charges may be taken as a substantial contribution by the shipping public towards the relief of the difficulties, and it will be for the railway companies to do the rest. Unless greater effort is made by the railroad companies, with the view of more prompt transportation and handling of traffic, I do not believe that the increase in the demurrage charges will make any substantial difference.

"There is almost a unanimity of opinion among the shipping public that they would cheerfully consent to the increase in demurrage charges if a measure of reciprocal demurrage was made effective at the same time; that is, if the railway companies would pay a per diem alllowance to the shipper or consignee for unreasonable delays in the delivery of cars on the part of railway companies. That is a matter with which we cannot deal in this application. It was brought to the attention of the board at a sitting in Winnipeg in July last, and is, I believe, now being considered by the chief commissioner and Mr. Commissioner McLean on their present Western trip, and it cannot be disposed of without a hearing in the East, where a number of shippers desire to be heard on the subject. In disposing of the question of reciprocal demurrage, the board will, of course, consider what, if any, effect this temporary increase in the demurrage charges may have upon that question.

"I therefore think an order should go granting a temporary increase in the demurrage charges as mentioned above, to become effective on the 15th December next, and continue until the 1st April next, when, unless otherwise ordered by the board, the old charge of $1 per day will be restored. I have made the effective date December 15 so as to give the shippers and consignees two weeks' notice.

"It was pointed out to us at the hearing that the charges permitted for stopover privileges at Cartier and other points throughout Canada were based upon the present demurrage charges, and that unless otherwise ordered by the board, an increase in demurrage charges might result in an increase of stopover charges. There should be no increase in stopover charges, and provision to that effect should be incorporated in the order."

The Case Presented by the Railways

The railway companies in presenting their application before the Board made the following statement:

1. That a shortage of cars exists at the present time and more serious shortage will exist and consequent congestion during the succeeding four months of the winter of 1912-1913. due to the heavy demands upon the companies' equipment and in part due to the fact that cars are retained by shippers and consignees for unreasonably long periods of time when they should be released and put back into active service.

2. That the present charges provided under the Canadian Car Service Rules are so low as not to offer any inducement to shippers and consignees in their own interest, to load and unload cars as speedily as possible and it is, in the opinion of the applicant companies, largely due to such misuse of the companies' equipment that a car shortage does and will exist.

3. That under the present scale of charges it is often much cheaper for shippers and consignees to retain cars in their possession using them as temporary warehouses and for the purpose of distributing freight therefrom in small quantities, than to provide proper warehouse facilities or utilize public warehouses for the purpose of storing freight.

4. That this abuse of the companies' facilities is more apparent and the consequent congestion more severe in large terminals.

5. That the value of the car to the company under normal conditions is much in excess of the amount which it can collect as demurrage and such value to the companies is greatly exceeded in times when the facilities and equipment of the companies are taxed to their fullest capacity as at present. Moreover, in large terminals the track space actually occupied by a car is of very great value in itself and consequently must and should be used to its maximum capacity in the interest of all shippers and consignees rather than that its use should be restricted by the improper detention of cars in the interests of one shipper or consignee.

6. That in the opinion of the applicant companies during the period from December 1, 1912, to April 1, 1913, when the severest congestion and car shortage is likely to occur it is of the utmost importance that all cars should be released as soon as possible after being placed for loading or unloading.

7. That this application is being made, not because the companies desire to collect increased demurrage charges, but solely with a view to compelling shippers and consignees to permit all available rolling stock to be in active service continuously or as nearly continuously as possible and consequently of facilitating the expeditious handling of freight generally. The applicant companies would willingly forege any demurrage charges if the result would be that cars would not be detained beyond the very reasonable free time now allowed under the rules.

Are Increased Charges Justifiable?

Railway Board Put Them Through With Unfair Haste—Reciprocal Demurrage the Logical Outcome

Montreal, December 2, 1912

Editor Canada Lumberman:

Enclosed you will find some facts in regard to the application made by the Canadian railroads to increase their demurrage charges to excessive figures, namely from one dollar per day to two dollars per day for the first demurrage day, three dollars for the second day and four dollars for each succeeding day, which of course includes both the loading and unloading of freight cars.

Mr. Duval for the railways cited that the increase of demurrage charges in the State of California worked advantageously both for the railroads and for the shippers, but he omitted to state that the California shippers enjoyed reciprocal demurrage, with the result that shippers were able to get cars when and as needed.

If there are to be any increased charges reciprocal demurrage should certainly accompany them. By reciprocal demurrage is meant:—First; freight cars have to be placed for the shipper on certain dates, the shipper of course giving the railroads notice ahead; any delay on the part of the railroads to be paid for to the shipper according to the demurrage rates. Second; the railroads to deliver the cars at destination within certain reasonable fixed time, any delay to be paid the shipper according to the demurrage rates. Third; any delay in placing the cars on the proper sidings so they can be unloaded after their arrival to be paid the shipper as stated above.

Slow Deliveries the Cause of Delay

On account of the lack of freight cars, locomotives and terminals, and in some instances poor management, freight for some time past has been delivered very slowly, with the result that shippers have lost and are still losing heavily on interest account on their goods, as payments are generally held up until goods are delivered. This interest in the aggregate will figure up into thousands of dollars.

By the enclosed newspaper clipping you will notice some arguments against any increase so I will not touch on these.

According to the Canadian Car Service Bureau's report of May 31, 1912, there was collected in demurrage by the Canadian railroads east of Fort William, caused to a great extent by the railroads bunching cars, the sum of $324,731.60. As this amount is collected on the basis of one dollar per day demurrage what would this revenue amount to at two, three and four dollars per day?

A fair average cost of a freight car is nine hundred dollars, which under the present demurrage rate of one dollar per day would yield $300 per year allowing for Sundays and holidays, which equals 33 per cent. a year gross profit. Owning freight cars to be held under demurrage at the present rate which the railroads unjustly claim is too low would be an exceedingly profitable business; one that most of us would like to invest in.

Foreign Freight Cars

Another fact that ought to be mentioned is that the Canadian railway companies are using a great many foreign cars from the United States, and for the use of these cars our railways pay 35 cents each per day (of 24 hours) to the United States roads. As these cars only cost the Canadian Railroads 35 cents per day why should they not be satisfied with this enormous profit instead of endeavoring to make the shippers pay two, three and four dollars per day?

Further, the capacity of the large freight cars which are being built to-day is so much greater than those constructed a few years ago that it is sometimes impossible to load or unload these cars within the given time, especially if the country roads are in bad condition.

I also enclose a statement showing the vast grants given the Canadian railways by the Canadian people through their Government which figure one dollar for every two dollars and thirteen cents invested by the bond and stockholders, so it is with poor grace that they should endeavor to mulct the Canadian shippers with excessive demurrage charges, whereas, our neighbors in the middle and eastern States are charged only one dollar per day demurrage.

Yours truly,

Arthur H. Campbell.

In a second letter dated Dec. 3rd Mr. Campbell says:—By this morning's paper I notice that most of the advance has been granted. I think this is a very serious matter and to my mind the commission acted very hastily, because they did not give the public any time to prepare their case. The only notice that was given out was received by the Boards of Trade of Montreal and Toronto, five days before the hearing was granted, so the shippers were not prepared with their best evidence against the request.

The statement of grants made by various governments and municipalities in Canada to the railway companies, to which Mr. Campbell refers in the above letter is as follows:—

Subsidies, Land Grants and Guarantees of Bonds

Subsidies:		
Dominion Government, cash		$148,217,071.75
Provinces, cash		35,919,360.16
Municipalities, cash		18,042,823.60
		$202,179,255.51
Land Grants:		
Dominion and Provinces, 55,256,429 acres, at average say, of $2.50 per acre, amounts to		$138,141,972.50
Guarantee of Bonds:—Dominion		
C.N.R. 3 per cent. 50 year bonds	1,923,287	
C.N.R. 3½ per cent. 50 year bonds	1,622,586-19-9d	
G.T.P.	7,200,000	
	10,745,873-19-9d or	$52,439,865
Manitoba		$ 20,899,660.00
Alberta		25,743,000.00
Saskatchewan		11,999,000.00
Ontario		7,860,000.00
Nova Scotia		5,022,000.00
British Columbia		23,196,832.00
New Brunswick		700,000.00
Quebec		476,000.00
		$148,336,357.00

Recapitulation

Cash subsidies	$202,179,255.51
Land grants	138,141,072.50
Guarantee of bonds	148,336,357.00
	$488,656,685.01
Aggregate capital liability	$1,528,689,201.00

Nearly 32 per cent. given to the railways by Canada

Or:

In other words, for every $2.13 paid by the bond and stockholders, Canada has furnished one dollar.

Protection for Timberlands

The Canadian Board of Railway Commissioners has recently prescribed regulations for the prevention of fires and for regulating the operation of locomotives in the dry season in the province of British Columbia.

This order provides that every locomotive must be fully equipped with spark arresters of a specified size, with sheet-iron dampers, over-flow pipes and division points. The company must examine, at least once a week, the nettings, dead plates, ash pans, dampers, slides and fire-protective apparatus of each locomotive and keep a record of each inspection for the Government's special inspectors who are to make an independent monthly examination. The board of railway commissioners is given power to remove from service any locomotive found defective in fire-protective apparatus. The roads are prohibited from burning lignite coal without special permission from the board, and between April and November, the burning of ties and refuse along the tracks is forbidden. Any fire starting or burning within 300 feet of the railway track shall be presumed to have started from the railway.

A measure is being discussed by those interested in the protection of Maine timberlands from fire. It will probably be introduced in the legislature of that State during the coming winter. If passed, it will give the State Board of Railway Commissioners authority similar to that held by the Canadian Board.

A Pioneer Millwright Gone

One of the oldest and best known millwrights in the Ottawa Valley, Erastus A. Bullis, died recently at his home, 486 McLeod street, Ottawa. The late Mr. Bullis built most of the first mills in Ottawa and Hull. He was 85 years of age, and before his death was enjoying very good health. Death was the result of a paralytic stroke.

The late Mr. Bullis was born in the state of Vermont, and moved to Kemptville, Ont., when quite young. A few years later he took up his residence in Hull. About the same time the late E. B. Eddy came to Hull and established a general store on Main street. Mr. Eddy intended to take up a more profitable business, and he secured the services of Mr. Bullis to build the first mill in Hull.

A few years earlier than that Mr. Bullis built the first mill on the Gatineau river, near Chelsea, on the Cantley side. He also built J. R. Booth's mill in Hull and several other small mills. Many years ago he built the Crandell mill at Hurdman's Bridge.

Importance of Uniform Lumber Grading

What Shall Be The Remedy?

Written specially for the Canada Lumberman and Woodworker by H. E. Miles

That the lumber industry is crippled, and that the Canadian branch is badly affected through not having a universal standard by which to determine the value of each grade of lumber to be marketed, is beyond question. Hence to seek a remedy would seem to be in order. What shall it be?

By a glance at the past we find that no reform has ever been proposed without meeting opposition, and no achievement was ever attained without effort on the part of its promoters. It seems to be a law of nature that the greater the object, the greater the effort required to attain it. Hence, if it appears to be a matter of great difficulty to establish a system by which a party wishing to purchase a certain quality of lumber may, by the use of technical terms, be able to make a dealer handling that kind of goods know just what he wants, this should be no discouragement or argument against the project.

No one seems to have any objection to the use of such terms in connection with the trade, but when it comes to establishing specific uniform definitions for them, it appears that there are some who would prefer to leave the public to infer, or to apply, definitions suited to their own taste. This is not logical, for what good are the terms unless all parties concerned have the same understanding of their meaning? And while definitions have been inaugurated, their meaning has been too varied to be relied upon in all places.

Present Definitions All At Variance

It will be noted that nearly all rules for the grading of lumber employ much the same terms but each define them differently, and while some definitions are practical and quite well suited to the trade, others are rather slack, indefinite and wholly unsuited to command the respect of practical dealers. For instance, one particular set of rules for the inspection of spruce allows of one inch wane on one side of all dimensions.

Those who compiled these rules evidently did so with a view to including pieces that might otherwise be very good, the wane being the only fault. However, by catering to such conditions the industry becomes demoralized and manufacturers are encouraged to retain a low standard of efficiency. And what is gained? If, for instance, lumber for dressing is allowed to pass which contains more wane than will dress off. The seller must of necessity reduce the price sufficiently to allow for the work of one man at the edger in the dressing mill when the lumber is being dressed, besides the extra freight on the same. The writer would prefer to do his own edging and save this expense and freight. When we hire a man to edge our lumber why should we not insist that he edge it instead of lowering the inspection rules to afford him a lazy job? And if it is argued that any one is liable to miss occasionally, we admit that as true, but why should we degrade the quality of our stock to provide for such errors? Besides we note that in the rules above referred to no limit is specified. Hence the average miller will employ an edgerman of the ordinary type, and, for fear of wasting lumber, will allow a large quantity of wane to pass, which, if accepted, must reduce the price as above stated.

With such rules in force, the manufacturer who has a mill well equipped, and well manned with proficient help to cut his stock properly, practically free from wane, and to even inches, rendering it ready to be dressed without further trouble, would have to meet a price co-ordinate with that offered for the rough stuff produced by the other fellow who knows little and cares less about doing things right.

An Inevitable Development

While we have presented but one illustration, the principle will apply to all classes of stock. Because such rules have failed to become popular, some people have become discouraged about trying to establish uniform grading for the trade even throughout their own province. However, that this must be accomplished and will be accomplished is beyond question. Not only for one province but for the whole of North America and possibly a part of Europe and the British Isles. We can see no reason why all such territory should not be included as well as South America as the trade between the two countries increases.

Already the dealers of the United States, which country produces by far the greatest quantity of any, have, as we have seen, the matter of inspecting pretty well organized. And since our requirements are practically the same as theirs, why cannot the same results be obtained here? Besides we are supposed to be exporters often shipping to the same markets as they. And further we find that while these countries export much the same kinds of woods, they do a lot of importing from each other. We find by looking the matter up that this country imported from the United States during the year 1911 something like 500 million feet, and we are well aware that out export trade with that country is far greater, which trade is very important. Since it is apparent that there should be universal grading for all lumber handled at least by these two countries which produces nearly fifty billion feet of lumber annually.

An Instructive Illustration

At this juncture we shall mention a matter of some importance that came under the eye of the writer and which afforded him a chance to do some business by virtue of having a definite practical guide by which the value of his stock could be determined.

It may be a surprise to some people to learn that one great cause of the importation of lumber to this country from the United States, which is becoming so obnoxious to our lumbermen, is the fact that many shippers here lack a proper method of grading, but this is the case nevertheless. Three years ago the manager of one of our largest manufacturing concerns informed the writer that his people were importing maple from the city of Boston in large quantities because they had become discouraged in trying to secure satisfactory stock in their home country despite the fact that this is the home of the maple, to say nothing of our national emblem. The writer was ashamed and began to make note. The stock imported was firsts and seconds, and the use for which such stock was purchased will further surprise the reader, for the articles to be manufactured from it required no piece of cutting to be longer than twenty-four inches, or over three inches by three inches the other way, and those people declared that after experiencing much unpleasantness they found it cheaper to buy their stock in the form of planks, firsts and seconds grade, shipping it for several hundred miles from a metropolis, than to make further attempts to secure it from those who did business in a slack unscientific manner.

It will be seen that their business should only require a grade of number one common if such could be secured near home on a low freight rate. This they recognized and stated that they would be very glad to contract for such stock with reliable people whom they could depend upon to supply the proper goods.

While this is no doubt rather an exceptional case it is beyond question that there is much more lumber imported to this country than there would be if the home trade was conducted on better methods, the greatest lack of which is the result of stock being improperly gradèd.

Many are the comments that might be made, but perhaps they are needless. Those same people were paying for beech produced in that province, prices varying widely according to the quality, which stock was all being shipped log run culls out. The writer viewed several shipments and had an opportunity of seeing the difference in the opinions of the several shippers as to what constitutes log run culls out. He was convinced that the buyers were an honorable class of people who gave fair deal, an opinion which was afterwards substantiated by dealing with them. He could not desire a better class of people with whom to do business.

Surprised An Importing Consumer

Although we would rather not refer to personal experiences, we may be excused in this instance as the above narrative seems to be quite significant.

Without asking for an order to be placed, the writer informed these people that he intended to ship them a sample car of beech stock, which he chanced to have on hand, stating a price of three dollars a thousand feet higher than he was positive they had been accustomed to pay, and that any further shipments would cost them a dollar a thousand higher than the price of the sample. This stock of course had been cut from logs most of which had been turned five times while being sawn and it was shipped number two common and better, "National" inspection, or what is sometimes termed log run culls out the same as they were supposed to have been buying. The manager laughingly remarked: "All right send it along we will be pleased to see what it is like, but your price is three dollars higher than we have ever paid, however, we will chance one car for curiosity sake. The car was shipped and, after waiting a while and hearing no complaint, two more cars were sent along; and the sequel of this narrative will be found in a letter which we have on file from

that concern which states: "The sample of beech has been received and is quite satisfactory, and while we cannot see our way clear to pay the extra dollar a thousand that you informed us you would require for further shipments, we find that the amount asked for the sample car is very satisfactory. We require about three million feet of this stock annually and if you can supply that amount we will be pleased to contract for the same and cut out all our other sources of supply."

In this instance, at least, we were persuaded that it paid to manufacture properly and to know something about how to grade the product.

Had we employed some unpopular rules unsuited to such trade, or some which the buyers would know nothing about, we doubtless would have lost the business.

The Opportunity Now at Hand

It appears to the writer that the time is ripe for the establishment of a system of rules for the grading of lumber that will ultimately be adopted universally throughout the civilized world. After a perusal of the quantity of lumber produced by other countries we find that outside of the continent of North America the figures sink into insignificance. Here is located the heart of the industry, and while such countries as South America, Australia, and Central America, contain large forests of timber the lumber industry in them is only beginning to be developed. If we turn to the Scandinavian Peninsula we find too small a population to cut much figure when compared with the amount produced on this continent, and we have no reason to believe that the trade has been established on a very high scientific basis in Russia despite their large area of timber lands. Thus, since we understand that the matter of well established rules is somewhat lacking in those places, if such is a practical proposition, which we cannot deny, it would naturally have its origin in the country that produces the most of that commodity supplying a large quantity of it to other parts of the globe.

While the European states may be in the lead in the way of systematic operations in connection with the manufacture of textile goods and other products, it is doubtful if any rules for the inspection of lumber employed by any one of them would commend themselves to so wide a sphere as those employed by a country whose product is distributed over an area of country much larger, involving many varied conditions and requirements, and whose trade reaches out to much of the civilized world. That very fact appeals to the writer very forcibly in favor of the rules employed in the United States as no doubt being better adapted than any others. However, our purpose is not to advocate the apeing of others, necessarily, but a careful consideration of such rules cannot be untimely. For, those which have already become popular have been compiled by men of extensive research and their existence is the fruit of many years of study with a view to securing a standard suited to the requirements of the trade in general. In those rules we get the benefit of such knowledge, and only need to make, perhaps, a few changes to institute a set of rules better suited to the cause than now exists.

Hardwood Rules Requiring Changes

While the writer highly appreciates the rules adopted by the National Hardwood Lumber Association, he is aware that nothing in this world is so perfect that it cannot be improved. And on examining those as above referred to, and those of the Manufacturers Association for the inspection of hardwood, he is convinced that a few changes might be made in both to their betterment. Such changes are in most instances such as would cause them to be nearer alike. As an illustration of this the writer wishes to submit one point for the practical dealers to consider. Take for instance the grade of number three common for birch as defined by the rules adopted by the National Hardwood people which rules he has been able to use to a good advantage as we have seen. To his mind, if that grade were changed to read like the grade adopted by the manufacturers which admits of no piece of cutting containing less than fifty per cent. of sound lumber, it would be better adapted to the requirements of the trade. While this grade is regarded as culls by many dealers, which perhaps it is, if the higher grades have been properly inspected it will contain a large amount of valuable lumber for a nearby market where the freight is not too high. There are bound to be pieces containing a large amount of even clear cutting having too much wane or other defects to be permissible in the better grades. Such, we believe, should not be included and thrown on the market with lumber that contains but twenty-five per cent. of sound cutting as is the case when defined by the "National" rules. We believe that a piece of birch that contains so small an amount of sound lumber, which may also contain knots, is only suitable for fuel. Hence the writer would suggest a change in this instance in favor of the rules of the "Manufacturers" which call for fifty per cent. of sound cutting. Nothing is gained by shipping fuel for lumber and paying lumber rates.

On the other hand we believe the rules as compiled by the manufacturers association could be modified a little in some other respects in a way to make them cater to the specifications of the "National" rules. This would seem logical, for is it not reasonable to suppose that each corporation have based their definitions on extensive research and much hard thought? And since the judgment of a large number of men, of perhaps equal calibre, is superior to that of a few, is it not reasonable to suppose that slight modifications in favor of each other would come much nearer the ideal? This is but one of the few changes required to unite the two associations on the matter of inspection. And if they will not unite, the people of this country can make such changes, and thus place a standard before the world which, if properly introduced, we believe will commend itself to the trade in general. Ths writer can see no reason why the Canadian Lumbermen's Association should not join hands with those who are working to the same end on the other side of the border, viz., to effect such a compromise between these two very strong associations, who at present have practically the control of the inspection of hardwood in the United States and whose influence is fast becoming felt in foreign lands.

Thus far we have dealt mainly with the matter of the grading of hardwood, but as we have seen by previous articles in this journal the softwoods are being handled on a system that appears to be very harmonious and having now been quite well established the dealers of Canada only need to fall in line and supply themselves with the rules published and supplied by the several associations having charge of the same.

The writer would further suggest that the prominent dealers in this country take the matter up by correspondence with the associations connected with the trade and get together at some future date and remedy the adverse conditions that exist. It is evident that the Wholesale Lumber Dealers Association will be found to be a very important factor and that they will be willing to co-operate as they are already working to this end. Let it be an international affair and we believe it would be represented by many of the prominent lumbermen throughout the whole of North America at the very start.

Grading Methods in New Brunswick

St. John, N. B., December 2, 1912

Editor Canada Lumberman:

Our business here is almost entirely confined to spruce, and in the grading for shipment to the United Kingdom, we class it as follows:—1sts, 2nds, 3rds, and 4ths. The 1sts, 2nds, and 3rds we pile altogether, the 4ths we pile out separately in the mill yards. The grading is done by the surveyor in the mill, but frequently he allows 4ths to go in with 1sts, 2nds, and 3rds, and in such cases we carefully cull the stuff again when shipping to the United Kingdom, and in some cases we make as large as 5 per cent. additional 4ths.

In regard to pine lumber, the stock of good pine on this river is nearly exhausted, and what we have been manufacturing in latter years is what we call 2nd growth or sapling white pine. In the grading of this wood we only find what we call "large shipper, small shipper, 4th quality, and culls." We do not get any of the better grades such as "smooth shippers, clears or planers."

In regard to hardwood lumber, we manufacture little or none of this wood here at the mouth of the river, and what little we do manufacture is shipped in the rough to the United Kingdom in thicknesses of 2, 2½, 3 and 4 inches, and we make one grade which we call "merchantable."

Yours truly,

John E. Moore.

Would Remove All Uncertainty

Toronto, December 3, 1912

Editor Canada Lumberman:

In answer to your enquiry regarding the practicability of the grading of white pine and other lumbers, I wish to say that it appeals to me as the only business-like manner of putting the stock on the market. If there were something in the way of recognized grades put up it would save an endless amount of trouble and financial loss.

As the market stands to-day there are certain names given to the product of the log and the quality of the stock shipped depends upon the individual idea of the shipper. When it reaches the consignee, his idea may be entirely different from the idea of the shipper. As the trade stands to-day his opinion is just as good as the shipper's and the trouble commences there and then if both parties are self-opinionated. As a rule the shipper gets the worst of the deal, for he cannot afford to fall out with the customer over the grading, as he feels that he can make up for the loss in the future. The practice of giving away to the consignee has a very bad effect upon business, inasmuch as it has a tendency to make him a chronic "kicker." Grading rules for lumber have been tried out in the United

States and are working satisfactorily to all parties concerned and I cannot see any reason why they should not work equally well in Canada.

Some manufacturers say it cannot be done owing to the extra room, etc., that would be required. Now such is not the case as most manufacturers put up their stocks "mill run with the culls out," and the grading rules would not, in any way interfere with this method but would simply define what is a cull and what should be laid down from the mill run as designated. Then again the mill run as put up is worth more or less according to the percentage of the different grades which it carries, in accordance with the grading that is put upon it before being used. It can be seen readily that the so-called mill run has to be subdivided before being used and the use to which the lumber is put fixes the value. I cannot see any good reason why the man who does the hard work and assumes untold hazzards should not know what his lumber carries in the different grades to which it is ultimately separated.

Lumber being a bulky commodity cannot be sold from sample but rather from lists and the different items on the list have to be described by the salesman as the different mills have different ideas of grading. The salesman has certainly a hard proposition to get orders that would be profitable to both seller and buyer, simply because the buyer does not know just what he will get and prefers to deal with the stock he is accustomed to, even at a loss.

Now all this uncertainty could be done away with by having a standardization of grades and an off-shipment could and would be adjusted by a disinterested party who would make his decision upon the stock as he found it, irrespective of the buyer or the shipper. The party at fault would pay the expense.

The grading rules presented by myself to the Canadian Lumbermen's Association last February appear to meet with the approval of a large number of both manufacturers and dealers and I think they are worthy of consideration by the trade generally.

Yours very truly,
W. J. MacBeth,
Parry Sound Lumber Company, Toronto.

Difficult to Establish Uniform Spruce Grades

Sayabec, P.Q., December 2, 1912

Editor Canada Lumberman:
Toronto, Ont,

In regard to grading spruce lumber I would state that in my opinion the spruce lumber of different sections varies so much in the character of the knot and in the character of the defects that it would be practically impossible to make a standard grade. We take the greatest of pains with our own grading and when selling same are always particular, if anything, to under-represent the particular grade in question. As a result complaints on our grades are almost unknown to us. In fact I do not suppose that we have grading claims to the extent of ½ to 1 per cent. of our shipments. Under the circumstances we are very well satisfied with things as they are.

Yours truly,
John Fenderson & Co., Inc.

Mr. Ralph Loveland in Poor Health

The firm of Loveland and Stone of Cutler, Ont., has been dissolved and a new company has been formed under the name of the Stone, Grant, Lumber Company, Limited, who will be successors to the former company. Mr. Ralph Loveland, the former member of the company, has been obliged on account of ill health, to retire from the company and reduce the extent of his active business interests. The North Channel Lumber Company, Thessalon, of which Mr. Loveland was one of the chief members is bringing its business to a close and will cease operations. Mr. Grant the member of the new company is a brother-in-law of Mr. E. P. Stone the other member of the company and like Mr. Stone comes from Saginaw. Mr. Loveland is at present in the south for the benefit of his health and expects to return in a few weeks.

J. M. Diver Making Important Change

Mr. J. M. Diver, Sarnia, Ont., has announced his resignation from the position of Vice-President and General Manager of The Cleveland-Sarnia Saw Mills Company, Limited, Sarnia. Mr. Diver has made no statement as to his future plans but is known to have been in negotiation for the exclusive control of a very large property for some time past and interesting developments are expected shortly.

Mr. Herbert T. Whaley, formerly with James Maclaren & Company, Buckingham, P.Q., has joined the forces of Messrs. Muir, Terry & Gordon, of Toronto, as a travelling representative commencing with the first of the coming year.

A Well-Merited Success

E. C. Barre, Sarnia, Ont.

Mr. E. C. Barre, the well-known assistant manager of the Cleveland-Sarnia Saw Mills Co. Ltd., has succeeded to the position of General Manager rendered vacant by the resignation of Mr. J. M. Diver, which is announced elsewhere in this issue. Mr. Barre's promotion to this important position will be recognized by the lumber trade as a well-meritted reward for the splendid service which he has given to the company.

Mr. E. C Barre is a native of Michigan, having been born in Reading on May 18, 1871. When he was five years of age his parents moved to Greenwich, Ohio, where Mr. Barre received a common school education. At the age of seventeen he commenced work in a small saw mill and lumber yard at Greenwich. In 1895 he secured a position with the Cleveland Saw Mill and Lumber Co., Cleveland, Ohio, as bookkeeper, a position which he held until 1898, when he moved to Marquette, Michigan, as Manager of the Dead River Lumber Co., a branch of the Cleveland Saw Mill and Lumber Co. He remained at Marquette until 1901 when the Dead River interest was disposed of. Then he moved to Sarnia, Ont., to take the position of assistant manager of the Cleveland-Sarnia Saw Mills Co., Ltd. From that date to the present Mr. Barre has occupied that position with eminent success. He has been a great factor in the building up of the splendid trade enjoyed by the Cleveland-Sarnia Saw Mills Co. and his promotion to the position of General Manager will ensure that the business of the company will be carried on upon progressive lines identical to those which have characterized it in the past. Mr. Barre's many friends in the trade will be greatly pleased to hear of his success and will wish him still greater honors in the future.

Ottawa Firm Opens New Office

The Elmitt Lumber Company, Limited, wholesale lumber merchants, of Ottawa, Ont., have opened an office at 18 King street, Sherbrooke, Que., where active operations will be carried on in future. For some time past a large percentage of the company's business has centred around that locality and they found that by having an office on the spot they could attend to their clients' interests more satisfactorily. While they handle lumber of all kinds, the company are specializing in hardwoods, of which they carry large stocks. The head of the Elmitt Lumber Company, Mr. T. F. Elmitt, is a native of Ottawa, and has been engaged in the lumber business for about fifteen years. Before going into business for himself he was connected with the Shepard and Morse Lumber Company, the St. Anthony Lumber Company, and the old Bronson Weston firm of Ottawa. Besides the lumber business Mr. Elmitt has always taken a keen interest in military offairs in the capital city and is a captain in the 43rd D. C. O. R. He was one of the eight men picked to represent Canada, on the Palma Trophy Team in 1908 and was also on the Bisley and Olympic teams in 1908. His many friends are sorry to see him leave the capital city.

Mr. T. F. Elmitt was in Ottawa recently after an extended trip among the different lumbering firms in the province of Quebec. Speaking of trade conditions he said: "It looks as if the cheaper grades of lumber would advance in price next year. There has been so very much building in all parts of Canada during the summer where the cheaper grades of lumber, mill culls, etc., are most used, that the supply is nearly all sold out. I have never seen so little of this class of lumber on hand in the fall after all summer's cutting as is the case just now. Of course it indicates how very active Canada is in the building line."

Death of H. C. Thompson

Hugh C. Thompson, a well-known lumberman, of Orillia, Ont., died at his home there on Dec. 7th after two days' illness of pneumonia. Mr. Thompson spent his early years in Belleville, and fourteen years ago moved to Orillia. For a number of years he was with the Grand Trunk Railway and afterward with McCormick & McLeod of Bracebridge, and Playfair & White of Midland. Mr. Thompson was sixty-four years of age, and leaves a wife and two sons.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Ottawa Expecting Higher Prices for Shipping Culls

Ottawa, Dec. 9; (Special correspondence of the Canada Lumberman): Trade continues to be exceptionally good in Ottawa and the outlook for the winter was never more encouraging. One of the largest orders secured during the past week went to McAuliffe & Davis. It came from the Ontario and Manitoba Milling Company at Sudbury, where a new mill is being built. McAuliffe & Davis will supply all the necessary lumber. Their tender amounted to about $7,000.

Shipping culls will cost from ten to fifteen per cent. more next year say lumbermen here. The reason is that the supply is getting short and the demand greater so that an increase in price is the logical result.

Tenders for ties and poles are to be called for directly by the Morrisburg and Ottawa Electric Railway for use on the construction of the road, which is to commence next March. The main line will be 47 miles long and subsidiary lines will total 50 additional miles. The same company proposes to invite tenders for building several passenger and freight cars. The offices of the company are in the Canada Life building, Sparks street, and Mr. R. A. Bishop is the secretary-treasurer of the road. The engineers' report on the amount of material required for the road will be issued about the 15th of December.

The first car load of horses sent this season to the lumber camps from Ottawa left last week for the Hawkesbury Lumber Company's camps in the Temiskaming district. This season the demand for horses is not very great owing to the decreased number of camps compared with other years. It is estimated that there are fully 50 fewer camps in the Ontario district this year which means about 5,000 men less. The shortage of labor which was felt by lumbermen who required men for the camps a short time ago, has been overcome by the return of men from the harvest fields of the west.

The purchase of 81 acres of land on the Russell road, on the outskirts of Ottawa has just been closed by McAuliffe & Davis. Early next March it is proposed to commence the building of up-to-date planing mills, drying kilns and equipment for a modern lumber yard on the site. McAuliffe & Davis propose spending nearly $250,000 on this new plant, which will be touched by four railroads.

There is a movement on foot in Ottawa, which is gaining in popularity every day, to persuade the Dominion government to purchase several thousands of acres in the Gatineau district, between the Gatineau and Cologne rivers, and make a national park. The land it is proposed to acquire, now belongs to the Quebec government, but the big timber has been taken away and those who are familiar with it say it would make an ideal national park.

A representative deputation of the Canadian Forestry Association waited on Premier R. L. Borden last Friday and presented to him the resolutions passed at the recent forestry convention in Victoria, B.C. The resolutions dealt with the proper disposal of tree tops and other debris after lumbering, the prevention of settlement and squatting on lands only suitable for tree growing, the setting aside of more forest reserves and that all appointments to the forestry service be based on experience and ability. A request for an examination for all officials of the forest service was also made. The Premier promised to give the requests his serious consideration.

The deputation consisted of George Y. Chown, Kingston; Past President Hiram Robinson, Denis Murphy, George Murphy and Gordon Edwards, Ottawa, Senator Bostock, Thomas Southworth, Toronto; W. C. J. Hall, Quebec; W. Harkom, Melbourne, Que.; Ellwood Wilson, Grand Mere and Wm. Little, Montreal.

Lumbermen in Ottawa consider the increased demurrage tolls unfair. Too often they say, cars are delayed by the railroads. For example a lumberman orders ten cars of lumber daily. Instead of coming in as ordered the cars may come in in lots of 25—more or less—and the consequence is that the lumberman may not be able to unload the 25 cars in the 72 hours allowed before demurrage is charged. An appeal against the order may be made by the Canadian Manufacturers' Association. There is a very strong feeling in Ottawa amongst all classes of merchants against what they characterize as an excessive increase in demurrage tolls.

North Shore Trade Good—Weather Conditions Favorable

Thessalon, Ont. (Special correspondence of the Canada Lumberman): The mills on the north shore are now all shut down and navigation has about come to a close. The water shipments of lumber are nearly all finished for the season. A barge left here yesterday with 500,000 ft. of lumber for E. B. Foss of Bay City, Michigan. Two large barges are now completing their loads at Nesterville with a capacity of 1,000,000 ft. each. They will leave on December 5th. These will be the last boats of the season.

Mr. H. H. Bishop of the Thessalon Lumber Co. brought in two cars of very fine horses for the woods last week, for which he paid about $600 a pair.

The weather has been very unfavorable for woods operations throughout the fall. There has been so much rain that the woods are flooded. The cost of logs this season will be high. High wages and extensive supplies along with the wet weather will materially increase the cost. Lumber is selling at high prices and the demand is good. Some of the large firms have sold their next season's cut now and others are negotiating with Chicago and Cleveland parties for their entire cut of next season. The output will be very short this season, partly on account of the scarcity of labor and partly on account of the wet weather. We had about 6 inches of snow last week but it has all disappeared and the roads are impassable. Good sleighing is required from this out during the winter months.

Algoma.

Season Over at Quebec

Quebec, Dec. 8, 1912.—Business in the timber trade may now be considered at a close for the season. Shipments have ceased by water for timber and pulpwood, except some birch and a small quantity of deals which are going on the damaged Royal George as ballast. Contracts for next year's delivery will be made in February and March next.

Dry Stocks Scarce at Montreal

Montreal, December 11.—(Special correspondence of the Canada Lumberman):—Lumbermen in Montreal are greatly disappointed at the decision of the Railway Commissioners granting a temporary increase in the railway demurrage rates. This soreness is accentuated by the admittedly poor service of cars during the past season, and they feel that it is adding insult to injury to advance rates because of the action of a few men who have used cars for storage purposes. Lumbermen will be seriously affected by the decision of the Commissioners, which is regarded as illogical and altogether unwarranted. Following the hint of the Commissioners, an application for reciprocal demurrage is to be made, on behalf of the traders, who are determined to fight this question.

Considering the time of the year, business is very good, the open weather being a favorable factor, as it enables contractors to continue operations. Most lumbermen are optimists as to prospects for next year; certainly the building permits point to heavy building in 1913. For last month the permits totalled $2,550,313 in value, as compared with $878,045 in the corresponding month in 1911; while the total for the eleven months was $18,724,015, as against $13,960,280.

Generally speaking, there is a scarcity of lumber, and it is almost impossible to obtain dry stock. Prices, too, are hardening. Firms doing business with the United States report that the demand is very brisk.

Very little change in the position of newsprint is to be noted. One of the mills which started up earlier in the year, and is now turning out a large quantity of paper, is said to have made contracts for practically their entire output for a year ahead at prevailing prices; while another news mill which recently began operations has sold fifty tons a month to a daily paper in the Western States. One of the paper trade journals in the United States has expressed a fear that Canadian mills will come into that market and cut prices; but there is very little fear of this, as nearly all our mills exporting paper to the United States are manufacturing a superior quality, which commands the highest market prices, and there is no necessity for accepting unremunerative figures. Some comment has been made on a tariff case affecting newsprint before the United States Appraisers' Court. The case is as to whether Section 2 of the tariff is void in consequence of the failure of the reciprocity bill to pass the Canadian Parliament. It is pointed out that Representative Underwood's resolution at the last session of Congress cancels Section 2, otherwise the paper clause, in the reciprocity treaty, and substitutes a duty of $2 per ton on paper manufactured under that clause. It is stated that Mr. Underwood may reintroduce this clause and carry it.

Ground wood is a very unsatisfactory market. The United States mills are just now making practically all their requirements, owing to the good water powers. For the ten months to the end of October imports into the United States show a falling off of 84,000 tons. Canadian mills are running at their full capacity and will accumulate stocks until later, when there is certain to be a revival in the demand.

Sulphite is very strong, with very good buying orders. As compared with last year, prices have advanced from $5 to $7 per ton. The imports of unbleached into the United States from Europe and Canada increased, during ten months of this year, over 50,000 tons, whilst the imports of bleached remained almost stationary. In Europe there is a scarcity of sulphite, and some of the largest paper mills in Great Britain are in the market for big supplies.

New Brunswick Spruce Showing Strength

St. John, N.B., Dec. 9th. (Special correspondence of the Canada Lumberman):—The tendency for spruce in this section is still upwards, in fact good prices are being offered for goods for present delivery as well as for the season of 1913. The English deal buyers in this section are offering prices better than have been offered for some years; in fact it is said that the price is the highest that has ever been offered for deals. The stock of deals on hand at the Port of St. John does not exceed over 20 million which is a small quantity compared with previous years. The winter cut of deals will not be heavy unless conditions in the surrounding country change rapidly as the operators have not been able to yard up any heavy quantity of logs to date. The American market still continues firm and is taking anything offered at good prices. Therefore the outlook next year for a good price for English deals is very promising.

It is said that buyers for English deals are offering $15.75 for specifications of deals 50 per cent. 7 and 8 x 3 balance 9 in. up, with 3 x 4-5-6 at $14.10. Ends about $12,10 on wharves at St. John for shipment any time during next year.

The liners are only taking small parcels, and will continue to do so all winter. This will keep the stocks to a minimum on the other side, therefore keeping prices about as they are to-day. Trade conditions on the other side are extra good according to all reports from buyers who are coming over.

All stocks of deals, boards and low grade lumber have been sold up, no stocks at this port remaining unsold. Late sales of merchantable spruce boards 4 in. and up are bringing $13.00 to $13.50 per m. Low grade or refuse scantling planks and deals have been all closed out at about $9.00 per m., all prices at mills. This will leave a shortage in spruce boards and refuse, the only place buyers have to draw from will be the rotary mills cutting in the interior and the quantity will be limited and of a lower grade than city cut.

Pine boards are being firmly held at $24.00 for shipper boards 8 in. and up wide, 10 ft. and up with $16.00 for smaller boards. The higher grades such as planers are bringing about $60.00 according to quality.

Hemlock boards:—None are being offered as all stocks have been sold and shipped.

All rafting operations have ceased for the season, the river closing to-day. The St. John River Log Driving Co. rafted out of booms this year 98 million feet of spruce, pine, cedar and hemlock logs. About one million feet were left in the booms and about 1½ million feet at Government Island. This would have made about 100 millions for the season's work. The cut for next year will not be so heavy, as work has been very much hindered both by scarcity of men and the condition of the woods.

Heavy November Receipts at Tonawandas

North Tonawanda, Dec. 6; (Special correspondence of the Canada Lumberman): The customs report for North Tonawanda show that the receipts of lumber by vessel was unusually brisk during November. The total for the month amounted to 28,690,500 feet as compared with 25,794,900 feet during November 1911. 209,950 pieces of lath were also received at North Tonawanda during November.

Building has begun to slacken some in the territory supplied by local lumbermen. Salesmen report a perceptible change in the situation during the last week. While a certain amount of building will continue during the winter the summer rush is about over. It continued longer than usual on account of the mild weather during November. There is every indication, however, that next spring will see a strong revival of building in all lines using Canadian and American stocks.

The Eastern Lumber Company leads in total of lumber receipts for 1912, with upward of 40,000,000 feet to its credit. The Eastern received its last cargo a week ago. R. T. Jones & Company is second with a million or two feet less. The latter company would in all probability have reached the high mark had it been possible to bring down all the lumber contracted for. The scarcity of tonnage available during November made it necessary to leave several million feet on the docks at upper lake ports. Smith, Fassett & Company are also well toward the front in receipts. The Dock and Mill Company, M. M. Smith, proprietor, has also been a heavy buyer during the last few months. Its total for the season is in excess of 20,000,000 feet of lumber.

Mr. Levant R. Vandervoort, junior member of Smith, Fassett & Company, is able to be out again after a serious illness. Mr. Vandervoort was taken ill suddenly while visiting friends in Buffalo.

Private detectives have been engaged to solve the disappearance of H. J. Dunn, salesman for the Haines Lumber Company of this city. Dunn's home is in Chicago. He was last seen at Albany, N.Y., on the night of November 2. When he did not communicate with his employers in this city, an investigation revealed the mystery surrounding his whereabouts. The missing lumberman went from North Tonawanda to Albany. While here he acted strangely and on his departure left a trunk full of personal belongings which he said he would send for. The Empire State Association of Lumber Salesmen has taken up the unraveling of the mystery and President Jacob Rumbold is personally directing the search.

The railroad draw bridge, the only means of communication with Tonawanda Island, which contains half of the lumber yards in both Tonawandas, is in use again after being disabled when a lumber barge hit one of the abutments to the bridge. Not a car load of lumber could be moved from Tonawanda Island for seven days and the dozen lumber firms, several of which rank among the largest in the Tonawandas, were seriously handicapped in filling orders. While foot traffic was possible over the disabled structure, the bridge was closed to horses and lumber trucks as well as to railroad cars.

Bad Logging Conditions on Northern St. John

Reports from Bangor, Maine, state that unusually bad conditions in the woods and the scarcity of men for the lumber camps will have a tendency to decrease the timber cut along the St. John waters in northern Maine. Snow came early in northern Maine and at the present time there is between a foot and a foot and a half in the woods. It came before the ground had frozen, and some of the woods' roads for this reason are almost impassable. In some sections the lumbermen have been obliged to swamp new roads along the ridges to get to their operations, and in other places where plans were made to operate on low land or in the swampy country, the work has had to be abandoned altogether owing to the fact that the swamps are filled with water, and the heavy snow over a thin coating of ice will prevent them from freezing sufficiently so the men can go on them early enough to get out the timber. Men have been unusually scarce notwithstanding the fact that excellent wages are being paid. On the St. John River in Maine there are but few of the lumbering camps that have a full crew of men, and it seems to be impossible to get them. Wages are from $32 to $38 a month with board.

The Stetson, Cutler Co., of St. John, N.B., will have about 15,000,000 feet of Maine logs for their mill. W. F. Cunliffe's Sons, of Fort Kent, are operating on the Allagash to the extent of about 6,000,000 feet, which will go to St. John. Albert N. Currier, of Seven Islands, and Arthur L. Noble, of Fredericton, are cutting on the upper St. John waters for the Stetson, Cutler Co., and expect to take out five and four million feet, respectively.

It is quite possible that the St. John Lumber Co., which has the large plant at Van Buren, will not cut the 40,000,000 that it planned earlier in the season, owing to the bad conditions. Its operators are at work now and it may be that the full amount will be taken out before cutting ceases.

Charles E. Jones, of St. Francis, is cutting about 6,000,000 feet, part of which will go to the St. John Lumber Co., and part of which he will use in his shingle mill at St. Francis.

John L. Wheelock, of St. John Plantation, is cutting about 2,000,000 feet, which will go to the St. John Lumber Co.

The Intercolonial Car Shortage

There is nothing more aggravating to a keen business man than to be unable to fill orders for business, on account of a shortage of empty cars in which to make his shipments. At the present time a car shortage is prevalent in all parts of Canada. In the Maritime Provinces which are served by the Intercolonial Railway, the difficulty is if anything more pronounced than anywhere else. Mention of this shortage was made in these columns a fortnight ago, as the result of letters which have been received asking us to refer to the matter. Since then we have received further correspondence upon the subject in which the writer points out that the matter is not only one of temporary importance, but one which threatens to cause great inconvenience throughout the coming year unless the government takes active steps to provide more cars. "The shortage of cars," says one writer, "has been a very serious handicap to us here all fall, as our shipments have been tied up. Unless a very strong stand is taken by all the shippers along the road, we fear that this situation is going to be fully as bad, or worse for the coming year and we do not think that this matter can be agitated too much."

Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

New Manager at Disston's Toronto Plant

Samuel Y. Dingee

Henry Disston & Sons, Philadelphia, Pa., the well known manufacturers of saws, have made a change in the management of their branch office and factory at Toronto, Ont., by appointing Mr. Samuel Y. Dingee to the position of manager of this important branch. Mr. Dingee has been in the employ of the company for 32 years, having entered in October, 1880, at the age of 15, when he was employed in a minor capacity. Since that time he has gradually advanced into more important and responsible positions. Mr. Dingee's business education has been all in the line of mill saws, used in the manufacture of lumber, such as band and circular saws and machine knives and tools. He has had exceptional opportunities for acquainting himself with the details of the manufacturing end of the business and has thus become well equipped for the management of the Toronto branch. Mr. Dingee has also had a wide experience in the use of the saws. His presence in the Toronto branch will be a distinct advantage to the business, not only because he has been trained in the great saw works at Philadelphia, but also because he has a thorough knowledge of the requirements of the business.

An Important Wire Cloth Manufacturing Company

The Capital Wire Cloth and Manufacturing Company, Limited, Ottawa, Ont., report that they are now ready for business and in a position to supply paper and pulp mills with their wire cloth requirements. The plant of the Capital Wire Cloth and Manufacturing Company is in a building consisting of two storeys and an attic, 100 feet long and 45 feet wide, situated at the corner of Armstrong and Hamilton avenues.

The company are now installing a loom to weave Fourdrinier wires 204 inches wide, which they state is the largest loom on the North American continent and they believe that it is the largest in the world.

Mr. Wm. Buchanan, managing director of the company is, they state, the oldest living Fourdrinier wire manufacturer in the country to-day, having been engaged in this business for the last 58 years, with such concerns as the DeWitt Wire Cloth Company, the Eastwood Wire Company, the Cheney Bigelow Wire Works, and for the last sixteen years having occupied the position of manager of the Appleton Wire Works of Appleton, Wis., U.S.A. With so long an experience, Mr. Buchanan has become one of the best authorities on this class of work before the paper trade to-day.

In charge of its various departments the Capital Wire Cloth and Manufacturing Company have secured the services of men who are at the top in their various lines of work. The president and manager of the sales department is Mr. J. R. Buchanan, who was manager of sales for the Appleton Wire Works for the past 16 years and is a practical wire man. Their expert machinist and loom builder is Mr. Frank F. Haefs, vice-president of the company, who has had 10 years' experience in the Fourdrinier wire business. The secretary-treasurer of the company is Mr. J. W. Perazzo, a practical wire weaver with 20 years' experience in some of the largest plants in the United States. The superintendent of the plant is Mr. M. L. Peebles, an expert electrical and steam engineer, with 12 years' experience in the Fourdrinier wire business.

The company claim to be authorities on all matters pertaining to the trade and wish us to state that they will be pleased to answer any questions pertaining to the business that will be of interest to the paper trade in the Dominion. They also wish it to be known that they are in a position to recover and repair dandy rolls and cylinder molds either at the mill or at the factory.

Readers of the Canada Lumberman who are interested in the paper business will do well to communicate with the Capital Wire Cloth and Manufacturing Company when they are in the market for anything in their line.

Simonds Saw Company Increases Its Plant

The Simonds Canada Saw Co. Ltd., 95 Rue St. Remi, Montreal, P.Q., have recently purchased the saw and machine knife department of the St. Lawrence Saw and Steel Works Co., Ltd., at Sorel, P.Q. The St. Lawrence Saw and Steel Works Co., Ltd., had been manufacturing saws and machine knives for thirty years. They established for themselves an unsurpassed reputation for the production of excellent saws and knives. The Simonds Canada Saw Co. is equally fortunate in having established for itself an enviable reputation in the production of similar articles. In taking over the saw and machine knife department of the St. Lawrence Co. they are adding greatly to their capacity and are securing a plant which will enable them to maintain and increase the splendid trade which they have worked upon in all parts of Canada. Readers of the Canada Lumberman will be much interested in learning of this important development in connection with the Simonds Canada Saw Co.

Montreal Exports Show Good Increase

Montreal, December 11th—(Special correspondence of the Canada Lumberman):—The following is a preliminary statement of the exhas just closed. This does not take into account the shipments by ports of lumber from the port of Montreal during the season which the railway companies, small shippers, and steamship companies, which will be given later. It will be seen that there is an increase of 8,412,747 feet, which is extremely good, considering the higher freight rates and the interruptions caused by strikes:

	1912	1911
	Feet, B.M.	Feet, B.M.
Watson & Todd	33,217,881	30,663,444
Robert Cox	17,316,113	13,296,102
W. & J. Sharples	12,943,460	10,222,326
J. Burstall & Company	9,149,894	9,334,797
Dobell, Beckett & Co.	4,267,930	4,930,711
Cox, Long & Company	2,211,896	2,431,104
E. H. Lemay	8,857,349	7,208,343
E. M. Nicholson	7,670,005	9,134,954
	95,634,528	87,221,781

Important Action for Commission upon Sale of Timber Limits

Arising out of the recent sale of the mill sites and timber limits of the Revelstoke and Yale-Columbia Lumber companies to the Dominion Saw Mills, there was heard recently at Vancouver one of the largest claims for commission in the annals of the B. C. courts. Mr. Edmond Picard, a Parisian broker, claims a sum of $153,000 as commission on the sale, being at the rate of 9 per cent., or in the alternative a sum of $1,105,000, being the amount of the sale price less $595,000, the figure at which he held an option on the property immediately before the sale to the Dominion Saw Mills. The action was heard in the Supreme Court before Mr. Justice Morrison, and is likely to take some days, the documentary evidence being very extensive. The defendants to the suit are the Revelstoke Saw Mill Co., the Yale-Columbia Lumber Co., Mr. Charles F. Lindmark, president of the Revelstoke Saw Mill Co., and Mr. William A. Ward. The Dominion Saw Mills Co. and the General Corporation Ltd., were originally cited as co-defendants but were dropped from the suit before the trial opened.

The defendants claimed that Mr. C. F. Lindmark had given an option to Picard without authority, and that in any event this option had expired before the sale was made. Judgment was reserved.

A new method of rafting logs is expected to be tried on the St. John river, N.B. next year. The method is what is known as "shingelling." This plan is in use on the Miramichi, and it is said to be more economical than that which has been in use on the St. John river for so many years. This new step is taken as the result of the increasing cost of rafting logs.

About a thousand laborers from Malta are to be brought to British Columbia in the spring, and fifty of these have been promised employment by the Canadian Western Lumber Company.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

WANTED—LUMBER, ETC.

Wanted

1,000 cars ordinary Sawmill Sawdust. Will accept now or later. State what you have. Box 639, Canada Lumberman, Toronto, Ont. 22-1-68

Birch Logs Wanted

Wanted about 500 logs, Prime Quebec Birch, 18 inches and up. Quote F.O.B. Box 711, c/o Goulds Advt. Offices, 54 New Oxford Street, London, England. 23-2-82

Wanted

Large quantity of Birch, Maple, Elm, Ash and Basswood, 1 inch and thicker, Log Run Dry or can place orders for spring delivery. Box 636 Canada Lumberman, Toronto, Ont. 21-24-63

Wanted

Five million feet Hemlock and Spruce, 1-in. to 2-in., for delivery next spring or summer. Can use portion now. State what you can supply. Box 640 Canada Lumberman, Toronto, Ont. 21-24-66

Wanted

One million feet 4 x 4 to 8 x 8 Maple, Beech, Birch or Elm Squares. Will accept hearts of knotty stock, for rough work. Delivery now or during 1913. Box 638, Canada Lumberman, Toronto, Ont. 22-1-67

We use yearly five hundred thousand to one million feet of Birch, Basswood and Ash in our business and are open to contract with responsible mill men for same. We would be willing to advance money on the logs and also on lumber as sawn. Write us, Manufacturer, Box 619, Canada Lumberman, Toronto, Ont. 20-37 T.F.

Logs Wanted

Reliable Canadian firm wanted to stock Western Ontario mill. Any kind of logs will be accepted on basis of sawing by the thousand. Will also buy several thousand feet of logs on cars. Good shipping facilities on Grand Trunk. Box 662, Canada Lumberman, Toronto, Ont. 24-3-9

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4½ in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

Wanted

Basswood, 300,000 feet, log run—200,000 No. 2 Common and a quantity of shorts. I. B. Levy, 1789 Fulton Ave., New York, N.Y. 24-6

White Pine Wanted

The Advertiser would buy Fifty Thousand or more White Pine Logs. This season's cutting. Ottawa Valley preferred. Box 664, Canada Lumberman, Toronto, Ont. 24-1

Curly Birch Veneer Logs

We buy any quantity, 16-in. quarter girth and up. State prices f.o.b. European steamer, and approximate quantity. Confirmed Bankers Credit. Box 658, Canada Lumberman, Toronto, Ont. 24-4

Lumber Wanted

Four, five and six quarter, Spruce, Hemlock and Norway, four, six, eight and ten inches wide, rough, also surfaced. White Pine Mill Culls and Lath. Box 615, Canada Lumberman & Woodworker, Toronto, Ont. 20-1-34

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

Hardwood Pickets Wanted

Beech, Birch and Hard Maple.
1 x 1 x 42.
1 x 1 x 48.
1 x 1½ x 42.
1 x 1½ x 48.
1 x 1¾ x 42.
1 x 1¾ x 48.
Require Thickness, 1/16-in. Plump.
Quality—Free from all defects.
Can take delivery of green or dry stock.
Apply to The Canada Wood Specialty Co., Ltd., Orillia, for full particulars, price, etc. 24-1-TF

FOR SALE—LUMBER, ETC.

For Sale

Two cars of small cedar posts. Two cars of heading (basswood, elm and ash). We want to move this stock at once. John Carew Lumber Company, Lindsay, Ont. 24-1-7

Yellow Pine Timbers

We have on hand in London, three carloads of Yellow Pine Timbers, 8 x 14 to 12 x 14, 12 x 24 ft. long. Prompt shipment can be made. For further particulars apply to The London Lumber Co., London, Ont. 23-24-86

For Sale

500,000 ft. Maple squares, 1¼-in., 1½-in., 1¾-in., 2-in., 2¼-in. and 2½-in. Any length from 12-in. up.

Car lots and upwards.

M. Mitchell, P. O. Box 204, Lucknow, Ont. 23-2-79

Lumber For Sale

400,000 ft. 3 x 7 and up Merchantable White Pine.
200,000 ft. 2 in. Merchantable White Pine.
200,000 ft. 1¼ in. Basswood, Log Run.
500,000 ft. Hard Maple, 1 in. to 4 in.
Apply to
GEO. C. GOODFELLOW,
Montreal, Que.

For Sale

⅝-in. Yellow Poplar saps. One carload 10-in. to 16-in. wide. Also one carload 2-in. panel and No. 1 Poplar 12-in. to 24-in. wide.

CHARLES F. SHIELS & CO.,
21-24-60 Cincinnati, O., U.S.A.

Butternut

45 M. ft. 1 x 4 and up averaging about 6½ inches, 10-16 ft. Log Run Butternut, dead culls out. A good lot in shipping condition. C. A. Spencer, Montreal, Que. 24-95

For Sale

200 M. ft. Hemlock. Can be cut to order. Several cars telephone poles; also square Birch, Beech, Maple and Elm from 3 x 4 to 10 x 10, 10 to 16 ft. long or longer. 4 ft. slab wood and sawdust. Hall Bros., manufacturers and wholesalers. 174 Mutual street, Toronto, Ont. 24-98 t.f.

FOR SALE—BAY POPLAR

At our Ayden Mill, freight rate to

Norfolk, Va.	8c
Baltimore	15c
Philadelphia	16c
New York City	20c
Boston	23c

We offer 400 M feet 1 x 6 in. and wider bay poplar, thoroughly bone dry and straight, good widths and lengths, beautiful stock, piled for 1st and 2nds, but will likely down grade in shipping about 20 per cent. No. 1 common. This stock is cut heavy and most of it would dress two sides 1 in. thick. For quick shipment will quote special prices.

AMERICAN LUMBER & MFG. CO.,
24-3-99 Pittsburg, Pa

FOR SALE—MACHINERY, ETC.

For Sale

A 35-inch Leffel waterwheel, or will exchange for a two-saw edger in good order. A. Dawson, Chesley, Ont. 24-1-8

For Sale

Good boiler, 72 inches by 14 feet, 72 4-in. tubes, 75 h.p. engine. All in good condition and ready for immediate shipment. Will accept lumber in exchange. Apply to Box 657, Canada Lumberman, Toronto, Ont. 24-2-3

Two Saw Mills For Sale

Two second-hand portable Saw-Mills, each fitted with cut-off saw and 52-inch inserted tooth saw, also one double edger and one 24 h.p. Stationary Engine and Boiler. Everything in first-class condition and good working order. Reply, Messrs. Thomson & Findley, Terra Nova, Ont. 23-24-59

Keg Making Machine For Sale

Consisting of one bilge drum saw, American make, entirely new; one stave equalizer, also new; one heading turner (this is not new but in good order). Has attachments for turning barrel headings. For further particulars write J. E. Waterous, Brantford, Ont. 23-88

Saw Mill For Sale

Huntsville Lumber Company, Limited, will in the future only run one of their two double cutting Band Mills, which is now cutting fifty thousand feet per day.

They will sell the same with engine, boilers and all other machinery along with building. Also will sell blacksmith's tools and a number of saw-log sleighs and chains.

Huntsville Lumber Company, Ltd.,
22-42 T.F. Huntsville, Ont.

WANTED—EMPLOYMENT

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

WANTED—By practical experienced man, position as manager of lumber or pulp operations. Can handle any kind of proposition from stump to market, including financing. Highest references. Bond if required. Reply Box 663, Canada Lumberman, Toronto, Ont. 24-2

WANTED—Position as superintendent or manager. Have had over twenty years' experience from stump to market with large concerns in Canada and the States. I am practical and have been successful operating at low costs. Can furnish best references as to character and ability to produce results. Reply to Box 652, Canada Lumberman, Toronto, Ont. 23-24-87

WANTED—EMPLOYEES

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

Wanted immediately, competent hardwood lumber scaler. Dominion Mahogany & Veneer Co., Limited, Montreal West, Que. 24-1-97

Wanted

Party to make and take out yearly one-half to one million R. R. ties. Yellow Pine—three to five years work. Box 655, Canada Lumberman, Toronto, Ont. 24-96

WANTED—Office man to take charge of books at a fair salary, and purchase interest in established wholesale car-load lumber business in Edmonton. Three to five thousand dollars required. Splendid opportunity. Address, Wholesale Lumber, P. O. Box 1353, Edmonton, Alberta. 23-24-94

We require an experienced salesman for Ontario to sell Planing Mill Products and Box Shooks. Must have knowledge of lumber grades and experience in selling Planing Mill goods. Service to commence January next or sooner. Apply, stating wages and experience, to Georgian Bay Shook Mills, Limited, Midland, Ont. 24

BUSINESS OPPORTUNITIES

For Sale

Sawmill, in good condition, on Burford Lake, six miles from Wiarton, equipped with 115 h.p. boiler, 100 h.p. engine, new carriage by Long Bros., Orillia, Ont., good trimmers and endless chain attachment for hauling logs out of water.

Terms, etc., apply Massey-Harris Company, Toronto. 4-T.F.

FOR SALE

Water Powers, Saw Mill, Farm and Timber Land, situated at Fallbrook, Lanark County, comprising:

No. 1.—Sawmill, and dam, twelve-foot head, driven by one 35-in. Samson and one 35-in. Leffel Water Wheels, and containing one Circular, Waterous 3-block Steel Carriage, Trimmer, slab saw, double edger, and complete shingle mill, planer and matcher, all in A.1. repair.

Lumber is sawn and piled in yard for less than one dollar per M. feet, deducting worth of slabs at mill. Average season's cut 500 M. feet. This season's cut over 600 M. feet, of which about 500 M. is still in yard. Large local trade and balance shipped from Perth, C. P. Ry., costing 90 cents per M. feet to deliver. No opposition on river in buying logs, which are driven to mill at a cost of one cent each, and can be bought in quantities sufficient to keep the mill going for years, at the following price, viz., $8.00 per M. feet for Ash, Bass, Elm, and $7.50 per M. feet for Spruce, Hemlock and Balsam.

No. 2.—150 acres deeded timber land, one-half to two miles off lake and can be logged very cheaply.

No. 3.—Dam and water power, at foot of Bennetts Lake, one mile from mill, 8-foot head, controlling the waters of Bennetts and Fagans lakes, with frame house and one acre of land. Also dam privilege and one acre of land foot of Sharbot Lake headwaters, of Fall River.

No. 4.—270 acre Farm, with stone dwelling, 30 x 44, 10 ft. ceilings, furnace, cistern, etc. (a lovely home) large Barn, Stables, Byres Silo, Drive Barn and Flour and Feed Store.

No. 5.—Frame house, 28 x 32, with stable and henery. All unencumbered. Wish to retire from active business. Will accept $12,000, half cash, balance arranged for all including sleighs, mill, wagons, boom chains, booms and other equipments as a going concern.

Fallbrook is 10 miles from Perth and the C. P. Ry., on the Lanark Co. Good Roads System, has daily mail, telephone, 2 stores, cheese factory, blacksmith shop, and the best rural school in the County, employing two teachers. This property is a money-maker, and everything as advertised is open for the closest inspection, including books. For further particulars, address A. B. Lees, Fallbrook, Ont. 24-1-5

For Sale

Saw Mill and fifty-three miles timber limits in County of Bonaventure, Quebec Province. For further particulars apply to J. D. Sowerby & Co., Oak Bay Mills, P.Q. 22-71tf

For Sale

Established Lumber Business, with first-class mill, now running full time. Timber limits with 20 to 30 million feet of standing pine timber conveniently located, and all merchandise, etc. Price $55,000. This is worthy of investigation. Address Box 332, Canada Lumberman, Toronto, Ont. 19-22-t.f.

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest, if your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf.

For Sale

Timber limit, containing 20,000,000 feet mixed timber. Latest improved saw mill, new; capacity 30,000 feet lumber in 10 hours, logging this winter 2,000,000 feet. Apply Geo. S. Nesbitt, Rupert, Que. 24-2-2

Quebec Timber Merchant Dies

Quebec, November 28.—The death occurred here last evening at the Chateau Frontenac of Mr. Stuart H. Dunn, one of the leading timber merchants of the city of Quebec, and well known throughout Canada and the United States.

Dam Proposed for St. Maurice River

The commission which was appointed by the Legislature of the Province of Quebec last year to study the running water powers of the Province has presented a report in which it recommends that a dam be erected on the St. Maurice River at Otter Rapids, at an estimated cost of $1,300,000 for the purpose of regulating the flow of the river. It is claimed that this would provide for a steady supply of 18,000 cubic feet per second throughout the year at Grand'Mere, Shawinigan and LaTuque, and that it would also enable the companies using the river for the driving of logs to bring down their logs in greater safety and much more regularly.

In a government report on the wood-using industries of Michigan, is stated that 50,000 board feet of apple wood is used annually for handles. "The only wood in the whole industry (handle) costing an average of $50 a thousand feet was apple, obtained in old orchards where the trees are no longer profitable for fruit. Apple wood is peculiarly fitted for saw handles and most of it is put to that use. Black cherry is employed for the same purpose, but in Michigan it costs $24 a thousand feet board measure and is much cheaper than apple wood."

Lumbering forms an important industry at Anticosti, the island in the St. Lawrence, owned by Mr. Henri Menier, the Paris financier. Four vessels are chartered for the conveyance of pulp and lumber, and next year four more are to be chartered. Some of the pulpwood has been sent to ports on the Great Lakes and also on the Atlantic coast.

Hearing of the complaint by the provinces of western Canoda that railway rates charged in the West were "an unjust discrimination" as compared with those obtaining in eastern Canada was formerly adjourned by the Board of Railway Commissioners till January 5. The reason for the abjournment was to allow the plaintiffs time to investigate the statistical evidence submitted by the defendant companies.

Try An Advertisement in the Wanted and For Sale Department

HENRY J. WELCH & CO.
CHARTERED ACCOUNTANTS
43 KING ST. WEST. TORONTO, CANADA
Audits, Investigations
Cost and general systems
Assignments and liquidations

Young & Cutsinger
EVANSVILLE - INDIANA

Send us your inquiries for:
¼ SAWED WHITE OAK POPLAR ASH
HICKORY WALNUT ELM BEECH

We make a specialty of quick shipments and standard grades. Let us quote you on your years requirements.

Canadian Sales Agent—
Frank L. Donnell - - Greensburg, Ind.

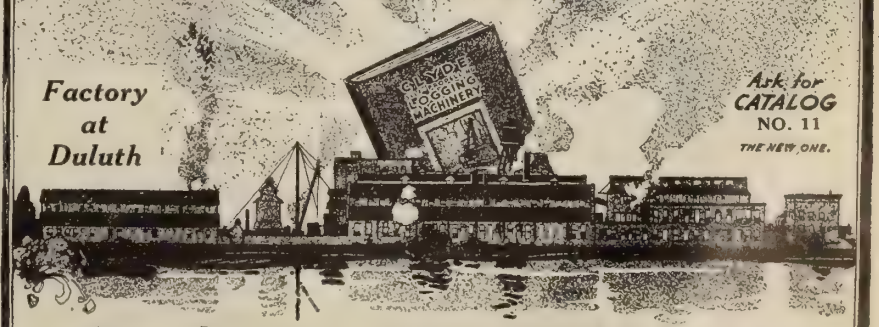
FOR SALE

Steam Logging Engine, by Alex. Dunbar & Sons

Denaston Breakey
Breakeyville, P. Q.

"CLYDE-GRADE Than which there is None better."

It doesn't seem possible to build Logging Machinery of greater economy and efficiency than that described and illustrated in this new catalog of ours:- but of course if it ever becomes possible, we will build it.



Factory at Duluth

Ask for CATALOG NO. 11 THE NEW ONE.

CLYDE IRON WORKS
Manufacturers at DULUTH, Minnesota, U.S.A. of CLYDE-GRADE Logging and Hoisting Machinery.

Review of Current Trade Conditions

Ontario

The recent decision of the Dominion Board of Railway Commissioners on the demurrage question has been the crief topic for discussion among lumber dealers lately. They report that in some cases their customers are cancelling orders and in others are asking them to be held over indefinitely. There is no doubt that the Railway Board's ruling had had quite a slackening effect, at any rate temporarily, on the lumber business. Taking this into consideration and the close proximity of the Christmas holidays, a quiet time may be expected until after the New Year. The demand for all kinds of lumber, however, was never better and the abnormal activity in the building trade gives every indication of a record year for lumber dealers in 1913. Lumber dealers generally admit that 1912 has been an exceptional year so far as volume of business is concerned and they are all optimistic as to their prospects for next year.

Owing to the wet weather in the early part of the season, particularly in June and July, there is a large quantity of stained stock in white pine on the market, more in fact than has been the case for the last five or six years. This stained stock of course means a considerable loss to manufacturers. Although the movement in the middle grades of pine has not been so brisk the last couple of weeks, the heavy demand for the low grades and the difficulty of obtaining them even at enhanced prices is bound to start a market for the higher priced lines. No. 2 Ontario spruce is particularly scarce and stocks will no doubt be at a premium in the early spring. Hemlock is now almost unobtainable and dealers can command exceptional prices for any stocks they may have to dispose of.

The hardwood market is still particularly active in all lines, prices at present remaining very firm and a considerable rise may be looked for after the holidays.

Spruce is offering from eastern Canada at a rate which bears out the reports in previous issues of the Canada Lumberman. For instance a quotation was shown to the Canada Lumberman last week which equalled $19.25 to $19.50 delivered at Toronto for an extremely nice lot of mill run, mill culls out.

Eastern Canada

The continued open weather assisted the lumber business in Quebec province during early December. The outlook for next year is good. Dry stocks of lumber in general are scarce at Montreal and prices show a tendency to advance. Building permits for November at Montreal showed a substantial increase. Exports of lumber from Montreal for the season showed an increase of nearly eight and a half million feet.

A better market is reported at Boston for eastern spruce. Buyers seem to be of the opinion that the present high price cannot last much longer but no one seems to be able to foresee the turn of events. There is no large production at present, as many of the summer mills have shut down. Random has been selling very well at steady prices. Stocks of covering boards are small and prices are firm. The market for hardwoods at Boston continues strong with buyers taking fair sized lots and paying full price. The shortage of cars is causing delay to shippers and helping to strengthen the market. Good quartered oak is selling at as high as $90. Plain oak is firm and in good demand. There is plenty of enquiry for maple. No change is reported in the market for hemlock. Firmer prices are reported for shingles at Boston. Cedar extras are going at about $4.25, although some holders are looking for a little more. Clears are bringing $3.90 to $4. There is a good demand for lath at firm prices. Dealers are asking $4.50 for 1⅝ in. and $4.10 for 1½ in.

At New York there is still an excellent demand for eastern spruce and prices are strong throughout the list. Stocks of hardwood are low and there is no difficulty in disposing of them at good prices. Plain and quartered oak are high and maple and birch continue strong. Hemlock is selling at good prices. The basic price continues at $24. Very few orders are booked at that figure the tendency being towards an increase.

Great Britain

The London spot market is quite cheerful and trade is moving along in a satisfactory manner. Prices are strong with an upward tendency. Deliveries at London docks for the week ending November 16th amounted to 6004 standards as compared with 4367 during the corresponding week of 1911.

Since the end of the importing season at Liverpool the market for all kinds of timber products has been exceptionally firm. Some hesitation however, is reported on the part of consumers and retail dealers to face the present situation. Spruce spot market values continue firm with an upward tendency. Importers raised their prices recently, to agree with c.i.f. values. Importers invariably state that their quotations are for prompt reply, as offers cannot be held over. Stocks are rapidly being depleted. Some of the largest importers are already entirely out of a few sizes. It is expected that by the end of the year consumers will have difficulty in securing stock.

Imported sawn boards are scarce, although two or three months ago they looked as though they would last for six months at least. Practically the only size in stock is 1 x 4 and these are disappearing quickly. Ocean freight rates continue high, no less than 65 shillings per standard having been paid for small parcel shipments of spruce. An upward tendency is reported in the market for birch, although the quantity of business is not heavy. There is a tendency on the part of importers to lie low and not commit themselves to current prices for March-April shipments. The spot birch market is firm with an indication of gradual advance as stocks become smaller.

The end of the season of imports from Canada has been marked by two of the leading houses issuing circulars announcing an advance in the price of third and fourth qualities by ten shillings per standard. A further advance is quite possible before the commencement of next season. It is considered certain that next year's import prices will show an advance.

At Manchester, spruce continues strong, making new high records. The scarcity is most noticeable in 3 x 9 inch deals, which have been retailed at 5d per superficial foot. Many dimensions are unobtainable.

The trade at Glasgow continues on a satisfactory basis. A serious shortage of stocks of pine deals is expected. Consignments of 11 x 3 inch third and fourth and broad fourth quality deals are being bought up on arrival at advanced prices, which shows that dealers realize that they will not be able to secure adequate supplies. It seems certain that the few shipments due to arrive will be cleared at still higher prices. Hardwoods at Glasgow are very firm.

United States

Reports from various parts in the United States indicate that the healthy expansion of trade still continues. Financial conditions on the whole are considered to be quite sound. Bank clearings show a decided increase as compared with those of a year ago and railway earnings are much higher also. The lumber business is in sympathy with the general trade and financial conditions. In the northern parts of the United States, northern pine and hemlock are in exceptionally strong demand. Stocks of these woods in fact, are insufficient to meet requirements.

Chicago:—The demand for white pine stock at Chicago is good with an exceptional urgency for immediate delivery. Indications are that this condition will continue until the opening of the next sawing season. The trade in northern pine is experiencing difficulty in securing sufficient stocks. The trouble in fact, is to secure lumber, not to get rid of it. The scarcity is particularly noticeable in the lower grades, Nos. 4 and 5 common and firsts and seconds. The hardwood market is also strong with the demand and the supply moving along on about an equal basis. Practically all orders are for immediate shipment. The stocking-up movement is not expected to commence until the beginning of the new year. The best demand is for oak, plain red oak selling at as high as $58.00. Quartered-sawed white oak is also moving readily and surplus stocks have been absorbed. There is an excellent demand for hemlock, and stocks are about sufficient to meet normal demand. The exceptional demand is causing stocks to be depleted rapidly. Stocks at mill points are shorter than usual. The demand for southern pine stock has fallen off somewhat, but shippers are still, in most cases, away behind their orders. This is accounted for to some extent by the shortage of cars. The demand for red cedar shingles is a little smaller. Clears are selling at $3.27 and start at $2.74. The prices of white cedar shingles are steady at $3.40 for extras and $2.40 for standards. There is a good demand for lath and prices are firm.

Buffalo:—There is a firm demand for most grades of white pine. An excellent inquiry is reported for pattern lumber. Stocks of box lumber are short, in fact at Buffalo and Tonawanda have none to offer. Trade in hardwoods has been good and the indications are for a continuation of the same condition. Prices are firm, particularly for oak, in which a scarcity is apparent. Hemlock has been assisted by the good building weather. Prices are stronger. The demand for yellow pine is good and prices are stronger with indications that they will continue so.

North Tonawanda:—Supplies of white pine show signs of depreciation many dealers have been forced to leave large blocks of stock at upper lake ports. The shortage applies more to the lower grades than to the uppers. The demand continues stronger and prices are

Partial view of booming ground and lumber yards

Easy to Sell

¶ It's easy to sell "Cleveland-Sarnia" lumber because its the kind you and your customers can absolutely depend on.

¶ "Cleveland-Sarnia" has stood for quality since the day our first log was cut.

¶ Sawing all the year round, we are never without complete stocks of Norway and White Pine lumber for prompt shipment.

¶ Do you require heavy timbers? We cut them any length required up to 60 feet from Pine and B.C. Fir.

SEND US YOUR ENQUIRIES AND ORDERS

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

A. F. Holden, Pres. J. M. Diver, Vice Pres. and Gen'l. Mgr. E. C. Barre, Ass't. Mgr.

fair. Shingles are scarce and another advance of ten cents has taken place in 16 inch clears and 18 inch stock.

Barbados Lumber Trade Report

S. P. Musson, Son & Co., Barbados, report under date of November 22nd as follows: Lumberstuffs—White pine—The Schr. "Evelyn" has arrived from St. John, N.B., to our address with 175 m. ft., sold to arrive some time ago. We also note the arrival of the Schr. "A. G. Eisnor" from Gaspe with a small shipment of 83,500 ft. which has been placed at $33 for merchantable, $23.25 for second quality, and $19.25 for inferior. We understand a small cargo now about due has also been placed to arrive at $33.05 and $24.05 for merchantable and second quality, respectively. Stocks are not heavy and further receipts are wanted. Spruce—The Schr. "Evelyn" also brought 170 m. ft. of this, which we had previously sold to arrive. The market is lightly supplied, and further receipts would sell to advantage. Pitch pine—No arrivals. Shingles—A small lot of 72,400 long Gaspe cedar which came to hand per Canadian steamer from St. John, N.B., have been placed at $8.71. There is some enquiry for these at present and next arrivals should also bring full rates. Schooks—The Schr. "Augustus H. Babcock" has arrived from Portland, Me., with 24.500 bdls., part cargo for shelves. Wood hoops—We note the arrival of 2,733 bdls. French and English by London steamer.

Gordon, Grant & Co., Ltd., Port-of-Spain, Trinidad, report under date of November 11th, as follows: We have no arrivals to report but an outlet could easily be found for a well-assorted cargo or two of heart pitch pine quality. American and Canadian white pine boards are always saleable and there is also some enquiry for spruce.

Firm Lumber and Pulp Markets in Norway

Reports from Christiana, Norway, state that the wood pulp market is firm for all kinds. Chemical pulp is inclined to advance and buyers are eager to secure larger quantities. Mechanical pulp is also very firm, although there is not for this, any special enquiry. Bleached sulphite is quoted at £11 10s to £12 10s per ton c.i.f. to the east coast of England. Dry mechanical is quoted at £5 5s to £5 10s. Swedish quotations are as follows: Mechanical moist, $8.80 to $9.33; mechanical dry, white, $20 to $20.80; sulphite easy bleached, $39.20 to $40.53.; all free on board Swedish ports.

The lumber prices in Norway have during this year gone up higher than at any time previous. The rise varies somewhat for the different river districts and for the different dimensions from 5 to 10 per cent., averaging around 6 to 7 per cent. A paper in one of the leading lumber districts writes, that it is to be hoped that the sulphite and pulp mills on the international market will make it possible for the Norwegian mills, in spite of the rise in the raw material, to experience some good years, which are now very much needed. For the owners of the wood-lands and the population of these districts, it is of the utmost importance that the mills are kept running and running with some profit.

Beaver Lumber Company Opens Toronto Yard

The Beaver Lumber Company with limits and mills at Kearney, Ont., have opened an office and yard at 14 Bathurst street, Toronto. They are also building a large yard at the head of Bathurst street on the Belt Line Railway to take care of their retail trade. Mr. J. A. Bird, manager of the new company, has had many years of experience in the lumber business. The company will specialize in hemlock and hardwoods.

Canada's Exports of Wood

Canada's exports and manufactures of wood for the 6 months ending September were as follows:

Wood and mfrs. of—Total	25,621,092	26,825,549	6,800,182	18,158,986
Logs	342,207	509,796	41,709	466,415
Lumber—Deals, pine	877,256	994,481	929,234	49,723
Deals, spruce and other	3,868,419	3,216,674	2,671,031	499,714
Laths, palings & pickets	1,074,475	1,050,929	36,714	1,000,000
Planks and boards	10,320,815	11,074,317	1,051,020	8,650,347
Shingles	863,308	778,538	.....	756,195
Timber, square	411,015	903,591	883,814	5,871
Wood blocks for pulp	3,157,480	3,626,306	.....	3,626,306
Wood pulp	2,363,943	2,627,607	568,559	2,037,552

Canada's imports of wood and manufactures of wood for the six months ending September 1912 were valued at $14,332,063.

Honors for B. C. Exhibit

The Canadian Pacific Railway recently received a telegram from New York, stating that the company had carried off the cup for best exhibits of grain and display of natural resources at the 1912 American Land and Irrigation Exposition. The judges said that the Canadian Pacific Railway booth contained the finest collection of the natural resources of any country brought together in any exposition. The British Columbia fruit and timber were much commented upon and the grain display was pronounced magnificent.

After the Canal is Opened

W. C. Wickham, of the Radford-Wright Lumber Co., of Winnipeg, visited Moose Jaw recently. In an interview he spoke enthusiastically of the outlook for greatly increased business after the opening of the Panama Canal.

"When the canal is opened," he states, "it will mean an $8 rate to Europe from British Columbia ports against $16 now charged. Instead of costing some $300 to ship a carload of lumber from the Pacific to the Atlantic by rail, it will cost about $150 by the canal route. This will mean that all the surplus lumber of British Columbia will find a ready market. At present the railway freight rates prohibit the use of British Columbia lumber in the east, but with the opening of the canal this will be a thing of the past," Mr. Wickham says.

Important Legal Decision

Many of the lower mainland mills in British Columbia are operated by means of electricity and therefore much interest centered in the case of W. D. McElmon vs. the B. C. Electric Railway Company, in which the plaintiff was awarded $8,500 damages. Mr. McElmon's mill was burned last summer, the cause being lightning which ran into the mill along the power wires. He sued the company on the ground that the wires were not properly safeguarded and was awarded half the amount he sought.

The C. P. R. has lost in its appeal to the Supreme Court of Canada from the judgment which awarded the King Lumber Company damages of $200,000 because of limits being destroyed by fire. The case was tried at Nelson a year ago, when it was shown that the fire originated on the railway's right-of-way, spread across intervening land and got into the timber of the plaintiff company. The case will be taken on to the highest court.

Men are Scarce and Labor is High

Let a Cyclone blow the dust from your mill. Blows the dust in any direction and as far as desired.

Saves the price of one man and will pay for itself in one month's time.

Will not clog or choke up—Built especially for the Circular Saw Mill.

FOR FULL PARTICULARS WRITE TO

The Ramey Company

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Secretary-Treasurer, WILSON BELL, Winnipeg

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Manufacturers of

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Cedar Shingles, Fir and Cedar Lath

Car Sills and Sheathing, Cedar Siding

Large and Long Timbers
for heavy construction work

Vancouver, B.C., and Harrison River, B.C.

BORDEN'S

St. Charles Brand

Evaporated Milk

Is the old reliable, has always taken the lead and always will.

The BEST for the CAMP, the MINE and the HOME.

Distributed exclusively by the Wholesale Trade

Borden's Milk Co., Limited

Originators of Condensed Milk and Largest Manufacturers of Milk Products in the World.

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WE aim to keep on hand a well assorted stock of Horizontal Tubular, Vertical and Locomotive Type Boilers. Your enquiry will probably find us in a position to ship the required boiler at once; if not it can quickly be built. Write us anyway.

The Jenckes Machine Co.

Limited

Sherbrooke - Montreal - St. Catharines - Cobalt - South Porcupine - Vancouver - Rossland
Works: Sherbrooke, Que., St. Catharines, Ont.

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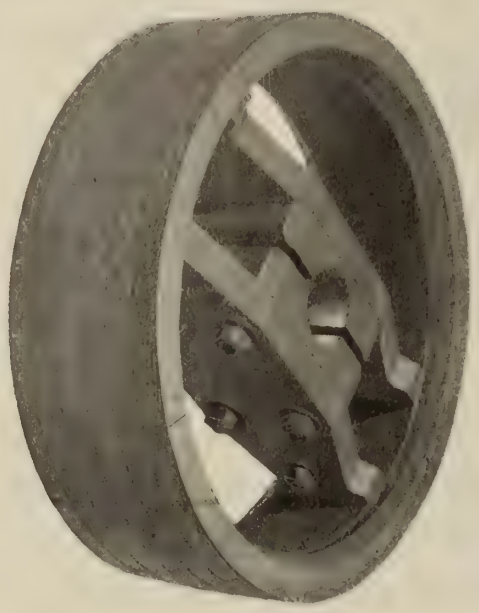

We have been making these Pulleys for nearly three years and have never had a complaint against the Pulley. If you will try one you will never use any other kind.

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Limited
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A. M. ELLICOTT CO., 301 St. James St., Montreal

LATH

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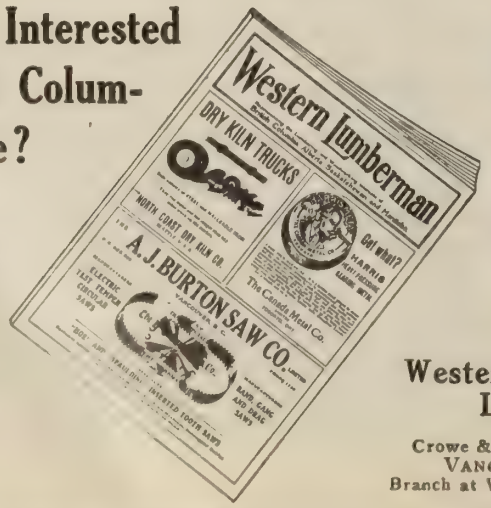
Limited
Board of Trade Building, MONTREAL

Are You Interested in British Columbia Trade?

The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.



There is undoubtedly a big market for Mill Equipment of all kinds. Let us Demonstrate our Advertising service. We please others, we can please you.

Western Lumberman
Crowe & Wilson Chambers
VANCOUVER, B. C.
Branch at Winnipeg

EDGINGS

Ontario

Mr. A. S. Nicholson has opened a planing mill at Burlington, Ont.

John Fewings, Millbank, Ont., is advertising his lumber and coal business for sale.

The Peterboro Planing Mill Co., Peterboro, Ont., are advertising their business for sale.

The hub and spoke factory belonging to the J. S. Loughead estate at Sarnia, Ont., was recently destroyed by fire, the loss amounting to $40,000.

Fire destroyed the power house and sluice gates of the Dryden Timber & Pulp Company at Dryden, Ontario, recently, causing damage to the extent of about $1,000.

The Ontario Gazette contains notice to the effect that the Provincial Secretary has accepted the surrender of the charter of the Munn Lumber Company, Limited.

A fire which detsroyed lumber to the extent of $1,800 or $2,000, took place in the lumber yard of Mr. J. A. Letherby, Toronto Street, Midland, Ont., recently. Three large piles were totally destroyed and several smaller piles damaged so that they are practically a total loss.

The Ontario Gazette contains notice of the granting of an extra-provincial license to the greater Ottawa Sash, Door and Lumber Company, Limited, whose capital stock for use in Ontario is not to exceed $50,000. T. J. McManus, Ottawa, is attorney for the company.

The Forest Products Company, Limited, has been incorporated with a capital stock of $49,000, to manufacture logs, lumber, wood products, etc., with head office at Peterboro. The provisional directors are H. E. Robers, W. Dealer, H. G. Logan, and W. H. Hill, all of Peterboro, Ont.

Notice is given in the Ontario Gazette of the incorporation of the Acme Furniture Company, with a capital stock of $40,000. They will deal in and manufacture lumber, furniture, etc. The head office is at Berlin. The provisional directors are J. Lauffer, J. Hunt and P. L. Kroetsch, all of Berlin.

Fibre Products, Limited, have been incorporated with capital of $250,000, to carry on business as manufacturers of wood, chemical pulp, etc., and to acquire timber limits, saw mills, etc., necessary for the business. The head office is at Thorold, Ont., and the provisional directors are F. W. Manson, G. J. Manson and A. W. Marquis, all of St. Catharines.

The Russel Timber Company, Limited, has been incorporated with a capital stock of $50,000, to operate timber limits, cut and sell timber and lumber and carry on a general lumbering and contracting business. The head office is to be at Port Arthur. The provisional directors are T. A. Reed, F. F. Langworthy and A. J. McComber, all of Port Arthur.

The next year's operations of the Spanish River Pulp & Paper Company, Espanola, are expected to bring in excellent profits. The company report that there is at present an excellent demand for its paper. The entire plant is now in active operation. The output of pulp is much greater than last year and the new paper mill is turning out nearly one hundred tons of paper a day.

Reitzel Bros., contractors, Waterloo, Ont., have made a proposal to the Board of Trade of Waterloo, to erect a brick, sash and door factory and planing mill, 50 x 100 feet, at a cost of $26,000, with lumber and fixings to the value of $10,000. They are asking for a loan of $20,000 from the town, agreeing to pay interest upon it at the rate at which the debentures are issued. The Board of Trade is in favor of the proposal and the town council will be asked to submit a by-law to the ratepayers at the annual municipal elections.

Eastern Canada

Aime Trudeau, Sr., has been registered to carry on a lumber business at Sherbrooke, P. Q.

Napoleon Carriere, Leonidas Carriere and Ovila Carriere have been registered to carry on business as lumber dealers at Pine Hill, P. Q., under the style of Nap. Carriere & Fils.

Plans are being rapidly developed for the work at Grand Falls, N. B., for the erection of the large pulp and paper mills which have been projected for some time. The sum of $8,000,000 is involved in this venture.

The Danville Chair & Specialty Company, Limited, J. E. Guilmette, secretary, are preparing plans for the erection of a dry kiln in connection with their plant at Danville, Quebec. The kiln will be 60 x 16 feet, of brick construction and fitted with the latest improvements.

W. H. Montague of Hartford, Ct., is in Fredericton, N.B., preparing plans for the improvements and enlargements to the Victoria Mills for Messrs. Donald Fraser and Sons. The mills will be fitted with the most modern machinery and will be ready for operation early next spring.

The Central Railway Company of Canada are calling for tenders for 1,000,000 railway ties, to be delivered at various points in Quebec and Ontario. Tenders are being received until noon, December 20th. The chief engineer is F. Stuart Williamson, 44 Beaver Hall Hill, Montreal, P.Q.

Preliminary arrangements for the changes and improvements to be made at the Victoria Mills, Fredericton, N.B., by Messrs. D. Fraser & Sons, have been commenced in preparation for the operation of the mills during the coming season. It is understood that provision has been made for securing the necessary lumber and that the cut will probably amount to about ten million feet.

Mr. John A. Young, M.P.P., has completed a deal for the purchase of the portable mill which has been owned and operated at Upper Gagetown, N.B., by Messrs. McMulkin & Currier. Mr. Young's son, Harold, is interested with him in the proposition and they will have the mill in operation in a short time at Taymouth on Mr. Young's property. He has considerable lumber of his own to cut and the people at Taymouth will take advantage of the convenience of having a mill situated there and will have

logs cut on their properties sawed there this winter. The mill has a capacity of 20,000 feet per day. It is understood that Mr. Howard Young is disposing of his mill on the Nashwaak to the Partington Pulp & Paper Company.

It is understood that the Quebec Government is considering the framing of a measure which has for its object the encouragement of the pulp and paper industry of the province. While the exact nature of the aid to be given does not appear to have been decided upon as yet, it is expected that the example set by the Ontario Government will be followed and tenders called for the cutting of pulpwood on certain areas in the province, probably in Northern Quebec.

Acting on behalf of the St. Maurice Lumber Company, Mr. H. Hilyard, of Dalhousie, N.B., has acquired all the properties of A. W. Carpenter, of London, England, formerly carrying on business at Gaspe Basin under the title of the Gaspe Lumber and Trading Company. The purchase price is understood to be in the neighborhood of $250,000. This property was held by Mr. Carpenter as chairman of the Charing Cross Bank, which failed. It is stated that a large pulp mill is to be constructed. Included in the property acquired are the wharves of the Gaspe Lumber and Trading Company.

Western Canada

Grant & Kerr, lumber dealers, Vancouver, B.C., have dissolved.

The Home Lumber Company has been succeeded by E. J. Meiliche & Sons, Limited, Clavert, Sask.

The Goose Lake Grain and Lumber Company, Limited, Dundurn, Sask., have been succeeded by the Home Lumber Company, Limited.

The Weyburn Sash, noor and Glass Company, Weyburn, Sask., will double the size of their plant next year by the addition of a building 140x195 ft.

The West Vancouver Lumber Company, Limited, has been incorporated under the B. C. Companies Act with capital stock of $10,000 and head office at West Vancouver.

The new sawmill which is to be erected by the Canadian Puget Sound Lumber Company, at Esquimalt, B.C., will be driven by electricity. The head office of the company is at 2120 Store street, Victoria, B.C.

The Middle West Lumber Company, Limited, has been incorporated under the B. C. Companies Act, with capital stock of $100,000 and head office at Vancouver, to carry on a lumber manufacturing and timber owning business.

The Canadian Pulp and Paper Company, Limited, Winnipeg, Man., has been incorporated. The incorporators are L. E. Brownell, R. Brownell, T. R. Ferguson, C. L. Simmonds, and E. K. Williams, all of Winnipeg. The capital stock of the company is to be $1,000,000.

A proposition for the erection of a pulp mill is under way at Grand Forks, B.C. The undertaking is in the hands of a syndicate in which Mr. Alexander Robinson, Victoria, B.C., is interested. The mill will have acapacity of fifty tons per day and will cost $500,000.

The LePage Lumber Company, Limited, has been incorporated with a capital stock of $100,000, to carry on business as timber merchants, saw mill proprietors, etc., with head office at Winnipeg. The incorporators are W. B. Tomlinson, lumberman, F. A. Shaw, manager, and J. T. LePage, all of Winnipeg.

Alexander Robinson, formerly senior member of the Robinson & LeQuime Lumber Company, of Grand Forks, B.C., who disposed of their business to the Western Pine Lumber Company about two years ago, is endeavoring to interest outside capital in the establishment of a pulp mill at Grand Forks.

F. A. Barton and C. F. Schaute, Calgary, Alta., have prepared plans for the erection of a paper plant to cost $150,000. The building will consist of two storeys, 82 x 34 feet, a vat building, 48 x 14 feet, and a warehouse for the storage of lumber. The plant will manufacture heavy wrapping paper and straw board.

The Pacific Box Company, 324 Prior street, Vancouver, B.C., have purchased a site for the erection of a new plant which will cost $25,000, and have three times the capacity of their present plant. The company will be in the market for box making machinery. Mr. R. W. Sharpe is president of the company.

The Big River Lumber Company will this winter have about 1,500 men in the woods and the Prince Albert Lumber Company will have upwards of 1,000. No difficulty has so far been experienced in getting a sufficient number of lumbermen, the supply and demand being pretty well balanced. The absence of frost has delayed the work at the lumber camps considerably.

The Phoenix Lumber Company and the Jasper Forest Sawmills Company are cutting 130,000 feet of lumber a day near Edson, Alta., west of Edmonton. The manufacturing of lumber will be one of the leading industries for some years to come in that district, on account of the demand which the development of the country and the opening of the rivers north of Edmonton will inevitably create.

The Riverside Lumber Company will erect at Calgary, Alta., one of the largest box, and sash and door factories and general woodworking plants in western Canada. The main factory building will be 100 x 300 feet. There will also be four other buildings for use in the wood-working business, each 60 x 100 feet, a glazing room 60 x 100 feet, a boiler house 75 x 75 feet, and two large dry kilns. In addition to these the company will erect a large office building.

Some difficulty is being experinced by members of a company at Victoria, B.C., who have secured the foreshore rights of the B. F. Graham Lumber Company and are desirous of erecting a mill at Thetis Cove, Esquimalt Harbor. When the B. F. Graham Company secured the foreshore rights it was their intention to erect a mill nearby. The financial depression of 1907-8 interfered with this plan and the site of the mill was transferred later to a company associated with the Canadian Puget Sound Lumber Company. This company now find themselves unable to proceed with the erection of a mill because the C. P. R. have encroached upon the property by erecting a wharf for the landing of their oil fuel, the wharf overlapping the property in question. The matter has been laid before the Minister of Marine and Fisheries and it is hoped that a settlement will be reached which will permit of the mill being erected.

Good White Pine

Ottawa Valley Manufacture

and

Ottawa Rate of Freight

4/4″ — 5/4″ — 6/4″ — 8/4″ — 12/4″

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Particulars furnished on request

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Dry Mill Cull and Box Lumber Becoming Scarce

These grades are being rapidly picked up. We have still a nice stock of last season's cut.

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We advise you to write, wire, or 'phone without delay and get the benefit of our low prices.

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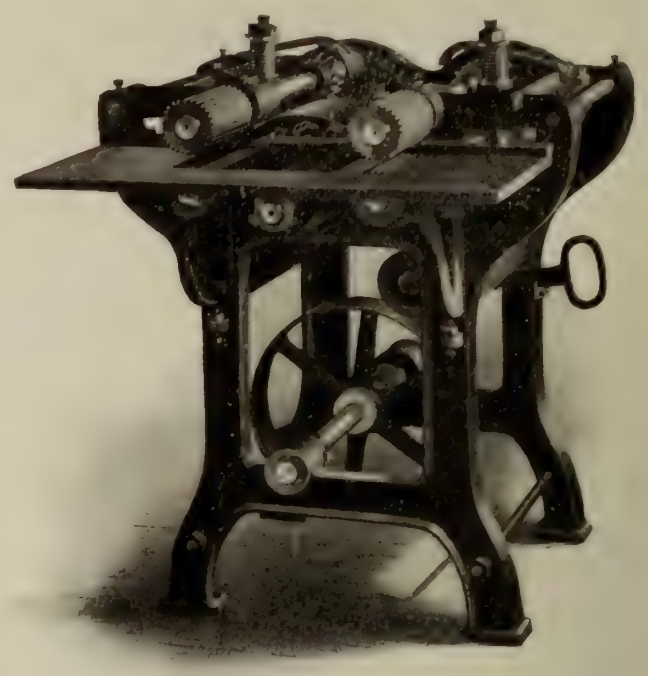
Self Feed Rip Saw



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The Stuart Machinery Co., Ltd.
WINNIPEG, MAN.
Agents for Saskatchewan, Alberta and Manitoba

Write for catalogue. It illustrates many special Box Factory and Saw Mill machines

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.

Cross - Cuts for Good Hard Work

The "SAW KING" Cross-Cut Saws have won exceptional favor throughout the trade by the good work they do, the hard wear they stand and their general reliability. These saws have stood the test of Camp and Mill and have proved their worth—their high quality steel and perfect tempering and grinding sets them far above the average and places them in a class by themselves.

THE "SAW KING" CROSS-CUT

The "Saw King" Cross-Cut Saws have merits possessed by no other saws. By looking at the above cut you will see that the chip spaces are wider and deeper in the centre than they are in any other part of the saw, thereby giving a capacity for the accommodation of the largest accumulation of sawdust, which is always in the centre of the saw. The chip spaces decrease in size from this point of the saw, as also does the quantity of sawdust. All users of saws know that the teeth at the centre wear much faster than they do at the ends, as the teeth are longest at the centre, it gives greater wearing capacity to the saw, and as the teeth are smaller at the ends of the saw and leaves the saw blades wider between the teeth and at the back. Where the blade is narrowest, it gives more strength and stiffness at the point where it is most required. The saws are tempered by our new improved process, giving them a keener cutting edge than any other Cross-Cut Saw made. They are thoroughly warranted. Any defective saws will be replaced by the seller.

Prompt Delivery a Specialty. **Send for Particulars and Prices.**

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He's a wise man who realizes that true belt value lies in its cost per day of Service

"AMPHIBIA"

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Leather Belting

COSTS LESS PER DAY OF SERVICE

than any other. This fact renders it the least expensive belting irrespective of any comparisons of first cost "per foot length."

Therefore—be SURE you get "AMPHIBIA"

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For Over 35 Years the Makers of the Best Leather Belts

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When purchasing Belting don't come to conclusions quickly—the selection of a poor cheap belt might mean considerable loss of power and efficiency in your plant.

Beardmore Belting will save you this trouble and loss—it will also wear better and last longer than any other belting on the market—it represents the maximum value obtainable in leather belting.

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Having everything under our supervision from the hide to the finished belt we are able to offer Leather Belting that we can fully guarantee.

The General Supply Co., of Canada, Ltd.

356-58-60 Sparks Street, OTTAWA, ONT.

Market and Louise Streets, WINNIPEG, MAN. **115-125 Adelaide Street West, TORONTO**

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WHAT SHOULD BE KNOWN BEFORE YOU PURCHASE LOCOMOTIVES:—

Nature of the service.
Capacity of the cars and weight of train.
Character of track—is it new or old.
Length of haul.
Is time an important factor.
Do you want a quick locomotive or a big puller.
Distance from base of supplies and quarters for the men.
Water and coal carrying capacity.
All these items and more should be considered.
A careful study of conditions may mean larger profits.
Our experience may be valuable in considering them.
A dollar saved is more than a dollar earned.

Write or wire us, or better still, come to see us.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

Why Users of Berlin Matchers Never Have Bearing Troubles

Bearing troubles on Berlin Matchers ended when Berlin Engineers brought out the automatic take-up box. The cap of this perfected box adjusts automatically, with wear. It cannot get too tight, nor too loose. Consequently it won't heat, nor pound. Berlin High-Efficiency Matchers are equipped with Automatic take-up boxes for cutter head journals and side head spindles.

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An illustrated circular of the several models of this machine sent upon request

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2. There is no heating or pounding because caps are held in place by springs that keep journals rigid but never tight enough to cause heating.
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4. Whenever possible sight feed oilers are used. The operator can tell at a glance whether journals are getting the proper amount of oil.

A Good Investment

Mills in every woodworking section find Berlin Matchers a good investment. They save grades and cut producing costs at every installation.

Automatic Take-up Boxes on Berlin Matchers run for months and years without any adjustment whatever.

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Largest Manufacturers of Wood Working Machinery in the World

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The proper kind of belting to use in order to get the best results is often a very serious problem.

The first cost of a belt is really a minor consideration. We can furnish a belt for any kind of a drive, and solicit your enquiries.

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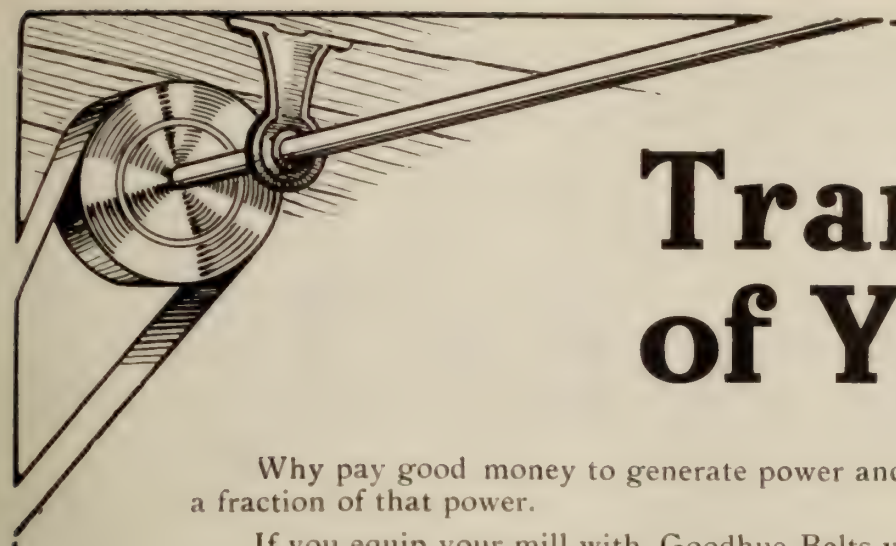
In writing, state size of pulleys, speed, etc.

Federal Engineering and Supplies, Limited

TORONTO - MONTREAL



Transmit 100% of Your Power

Why pay good money to generate power and then employ a poor belt that will only transmit a fraction of that power.

If you equip your mill with Goodhue Belts you can transmit 100% of the power generated.

Goodhue Belts stretch 15% to 25% less than other belts and have just the right amount of "cling" on the pulley.

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YOU CAN DO IT WITH— **A GOODHUE BELT**

J. L. GOODHUE & COMPANY, LIMITED.
DANVILLE, QUEBEC CANADA.

Schacht

—The Lumber Truck that Builds Big Business

Do you know that one Schacht Lumber Truck is worth more to you in dollars and cents than six to eight teams and wagons?

Men who have experimented say that horses can no longer compete with motor trucks in the lumber business.

Won't you let us show you where you can save money on your 1913 operating expenses?

Our booklet will be mailed free on request. Write for it.

Schacht Motor Car Co. of Canada, Ltd.

Hamilton, Ontario

The Truck with Good disposition — built for Canadians with Canadian money.

A Few Specifications—

Motor, 45-50 H.P., four cylinders.

Ignition, magneto, with double system.

Oiling, plunger pump in crank case, separate feeds to all bearings, with splash system.

Clutch, cone, thermoid faced, 15½ in. diameter.

Transmission, selective sliding gear, 3 speeds, forward and reverse.

Emergency Brakes, internal, expanding on rear wheels, 18-in. drum. Service brakes on each end of jackshaft.

Frame, rolled steel channel section, 6-inch side members.

Frame, 217¾ in. long, 38¾ in. wide.

Axles, rear, rectangular, 2¾ in. wide, 4 in. deep, drop forged. Front Timken, 1 beam with solid section through centre, 2 in. wide, 2¾ in. deep, dropped forged.

Bearings, Timken roller bearings in wheels, jackshaft and steering knuckle, annular bearings in transmission.

Tires, 36 x 4 in. single front, 36 x 5 in. dual rear.

Wheel Base, 144 in.; tread 64 in.

Speed, 10 to 18 miles per hour on direct.

Loading Space, 11 ft. 5 in. back of seat on chassis frame.

Body, to order.

One to Five Ton Capacity

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$60 00	65 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
4/4 No. 1 cut		45 00
5/4 and 6/4 No. 1 cut		52 00
8/4 No. 1 cut		57 00
4/4 No. 2 cut		30 00
5/4 and 6/4 No. 2 cut		45 00
8/4 No. 2 cut		47 00
4/4 No. 3 cut		23 00
5/4 and 6/4 No. 3 cut		30 00
8/4 No. 3 cut		33 00
1 x 6 common and dressing	27 00	29 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	25 00	27 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	32 00	34 00
1 x 12 common and dressing	39 00	41 00
1 x 10 and 12 mill cull stocks		23 00
1-in. mill cull sidings		20 50
5/4 and 6/4 x 4 m.r. m.c. out		23 00
5/4 and 6/4 x 5 m.r. m.c. out		25 00
5/4 and 6/4 x 6 m.r. m.c. out		28 00
5/4 and 6/4 x 8 m.r. m.c. out		28 00
5/4 and 6/4 x 10 m.r. m.c. out		31 00
5/4 and 6/4 x 12 m.r. m.c. out		36 00
2 x 10 common		28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common	25 00	26 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts		20 00
1-in. mill run Norway		23 00
2-in. mill run Norway		25 00
Norway, c and cf 1-in.	35 00	36 00
Norway, c and cf 1½-in.	36 00	38 00
Norway, c and cf 2-in.	36 00	38 00
Spruce mill run	21 00	22 00
Spruce mill culls		18 00
Clear in. B.C. cedar, kiln dried	55 50	65 50
Douglas Fir		
Dimension Timber up to 32 feet:		
8, 10x10, 10x12, 12x14, 12x12, 12x14, 14x14, 14x16		35 00
8x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 14x18, 16x18 18x18, and 20x20		35 50
6x14, 8x14, 12x18, 18x20		36 00
6x16, 8x16, 10x18, 12x20, 14x20, and 16x20		36 50
10 x 20		37 00
6 x 18, 8 x 18		37 50
6 x 20, 8 x 20		38 50
Lengths over 32 ft. take the following advances: 33 to 35 ft., 50c.; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5		
Fir flooring, edge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		45 00
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 00
1½-in. No. 1 4-ft. pine lath		4 50
1½-in. No. 2 4-ft. lath		4 00
1½-in. 32-in. pine		1 60
1½-in. No. 1 4-ft. hemlock lath		3 75
1½-in. mill run hemlock lath		3 50
X pine or cedar shingles		1 05
XX pine or cedar shingles		2 25
XXX pine or cedar shingles		3 20
XX B. C. cedar shingles		2 40
XXX 6 butts to 2-in.		3 30
XXXX 6 to 23-16-in.		3 52
XXXXX		3 75
Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.		18 50
1 x 6 6-in. x 9 to 16 ft.		21 00
1 x 8-in. x 9 to 16 ft.		21 50
1 x 10 and 12 in. x 9 to 16 ft.		23 00
1x7, 9 and 11 in. x 9 to 16 ft.		20 00
1-in. No. 2, 6-ft. to 16-ft.		17 50
2 x 4 to 12, 10 and 16 ft.		23 00
2x4 to 12-in., 12 and 14 ft.		22 00
2x4 to 12-in., 18 ft.		22 00
2x4 to 12-in., 20 ft.		24 00
2 x 4 to 12-in., 22 ft.		27 00
2 x 4 to 12-in., 24 ft.		30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		18 00

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	55 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	48 00
Ash, brown, common and better	37 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1sts and 2nds, 4/4	35 00
Birch, No. 1, com. and bet., 4/4	30 00
Birch, 1sts and 2nds, 6/4 and 8/4	38 00
Birch, 1sts and 2nds, 10/4 and 12/4	42 00
Birch, 1sts and 2nds, 16/4	44 00
Basswood, 1sts and 2nds, 4/4	38 00
Basswood, No. 1 com. and bet., 4/4.	33 00
Basswood, No. 2 and 3, common	17 00
Basswood, 6/4 and 8/4, 1sts and 2nds	42 00
Basswood, 6/4 and 8/4, com. & bet.	37 00
Basswood, No. 2 common and better.	29 00
Soft elm, 1sts and 2nds, 4/4	36 00
Soft elm, No. 1 com. and bet., 4/4	29 00
Soft elm, No. 2 and 3, common	16 00
Soft elm, 6/4 and 8/4 1 and 2	38 00
Soft elm, 1sts and 2nds, 6/4 x 8/4	50 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	31 00
Soft maple, com. and better, 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	34 00
Hard maple, 1sts and 2nds, 4/4	34 00
Hard maple, common and better, 4/4.	27 00
Hard maple, 12/4 & 16/4, 1sts & 2nds.	43 00
Red oak, plain, 1sts and 2nds, 6/4 & 8/4	60 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	65 00
White oak, plain, 1sts and 2nds, 4/4.	55 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	60 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	70 00
White oak, ¼ cut, 1sts and 2nds, 4/4.	86 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	90 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$53 00	55 00
1¼-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up	40 00	45 00
Pine good strips:		
1-in.	45 00	47 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	50 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	44 00
1-in. x 4-in. to 6-in.	32 00	36 00
1¼-in. and 1½-in.	48 00	53 00
2-in.	52 00	56 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	33 00	35 00
Pine, No. 1 dressing strips	26 00	31 00
Pine, No. 1 dressing shorts	22 00	26 00
Pine, 1" x 4" to 7" s.c. strips.	22 00	25 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00	26 00
Pine s. c. sidings 1½ & 2-in.	29 00	32 00
Pine, s. c. strips 1-in.	18 00	20 00
1¼, 1½ and 2-in.	24 00	27 00
Pine, s.c. shorts, 1 x 4 to 6 in.	16 00	18 00
Pine, s.c. and bet. 1 x 5	22 00	25 00
Pine, s.c. and bet. 1 x 6	23 50	25 00
Pine shorts 6'-11' 1"x10'	20 00	21 00
Pine, box boards:		
1"x4" and up 6'-11'	15 00	17 00
1"x3" to 6", 12'-16'	16 00	18 00
O. culls r & w p	11 00	13 00
Red Pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	16 00	17 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16'.	20 00	22 00
1¼"x7" 8-9" and up, 12'-16'	20 00	22 00
1¼"x10" and up, 12'-16'.	20 00	22 00
1½" & 2"x12" & up, 12'-16'	24 00	25 00
Spruce 1-in. clear (fine dressing and B)	27 00	28 00
Hemlock 1-in. cull	10 00	12 00
Hemlock 1-in. log run	13 00	18 00
Hemlock 2x4, 6, 8, 10, 12/16'	15 00	18 00
Tamarac	13 00	15 00
Basswood log run, dead culls out	22 00	25 00
Basswood log run mill culls out	26 00	30 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	15 00	18 00
Pine mill culls stock 1 x 12	20 00	22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	14 00	16 00
Lath per M:		
No. 1 white pine 1⅜-in. x 4-ft.	3 75	4 00
No. 2 White Pine	3 25	3 50
Mill run white pine	3 00	3 25
Spruce, mill run 1½-in.	3 00	3 25
Red pine mill run	3 00	3 25
Hemlock, mill run	2 75	3 00
32-in. lath	1 60	1 80
Pine Shingles		
xxxx, 18-in.	3 00	4 00
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	2 75	3 25
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

	cts.	
First class Ottawa waney, 18-in. average, according to lineal	85	90

Oak—Michigan and Ohio

By the dram, according to average and quality	62	70

Elm

By the dram, according to average and quality, 40 to 45 feet	80	85
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash

13 inches and up, according to average and quality	25	30
Average 16 inch	30	40

Birch

14 inch	18	20
15 inch	22	24
16 inch	26	28
18 inch	32	30

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up.	$18 00	19 00
Oddments	15 00	16 00
Boards, 1 and 2 in.	15 00	16 00

Birch Planks

1 to 4 in.	16 00	17 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$.54 00
1 in., 8 in. and up wide	67 00
1¼ and 1½ in. and up wide	69 00
2 in. and up wide	72 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	67 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	44 00
1¼ in., 8-in. and up wide	57 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	48 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	23 00
1-in. x 5-in.	24 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	30 00
1-in. x 12-in.	35 00
1-in. x 13-in. and up	35 00
1¼, 1½ and 2-in.	32 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	21 00	25 00
No. 2, 1¼, 1½, 2-in.	19 00	23 00

Mill Culls

Mill run culls, 1-in.		18 00
1, 1¼, 1½ and 2-in.		19 00
No. 2	17 00	18 00

Lath

No. 1, 32-in. pine	1 50
No. 2, 48-in. pine	3 75
No. 1, 48-in. pine	3 25
No. 3, 48-in. pine	4 50
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
	27 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring.	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine mixed widths	20 00
No. 4 common pine, mixed widths	14 50
No. 5 common pine, mixed widths	10 00

SHINGLES

XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00

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Endorsement

PEOPLE are influenced, consciously or sub-consciously, by the subtle command of "endorsement."

Suppose, for example, a friend of yours, in need of a certain article, goes into the nearest hardware store. ***His*** mind, perhaps, may be free of "endorsement." The salesman shows him several makes, all equally attractive in appearance, but remarks that he understands this brand or that brand has served others well. ***That*** is "endorsement," and it very likely binds the sale of one of these makes.

Your friend tries out the tool—proves its efficiency and durability. He becomes enthusiastic and at various times tells ***you*** of his excellent find. You are not in need of any tools at this time, but one day you break one of yours and go to a hardware store as your friend did. Here the salesman endeavors to push an inferior make; you are on the point of buying this when you see the brand on another. It is the one your friend has praised. You do not know the brand the salesman is pushing, but this other one is known to you and has received the "endorsement" of your friend—an "endorsement" that establishes your confidence.

That is the tool you buy.

The new and untried, the unknown, the little used and the imitation all make way for the article that carries "endorsement" with it—"endorsement" that it has earned by years of reliable service and continual improvement.

It is to gain the aid of this greatest of all salesmen, "endorsement" that manufacturers constantly strive. Obtained, and lived up to, like an avalanche, it goes on and on, gathering tremendous force—creating an ever-increasing demand.

It is this "endorsement," bestowed on DISSTON saws and tools by millmen and mechanics the world over, that has given them their prestige. Prestige that has steadily grown and widened in its influence for nearly three quarters of a century—prestige that is born of enthusiastic ***"endorsement."***

HENRY DISSTON & SONS

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Keystone Saw, Tool, Steel and File Works

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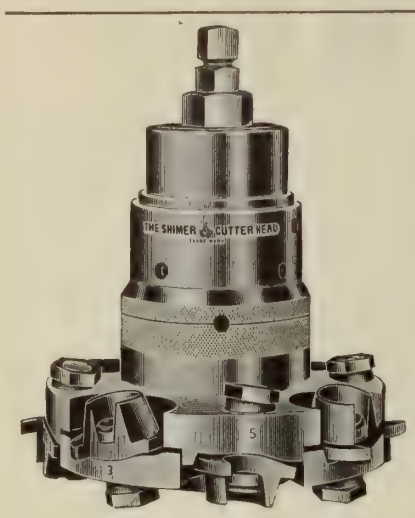
BRANCH HOUSES: { Chicago, Boston, Cincinnati, New Orleans, Memphis, San Francisco, Seattle, Portland Spokane, Toronto, Vancouver

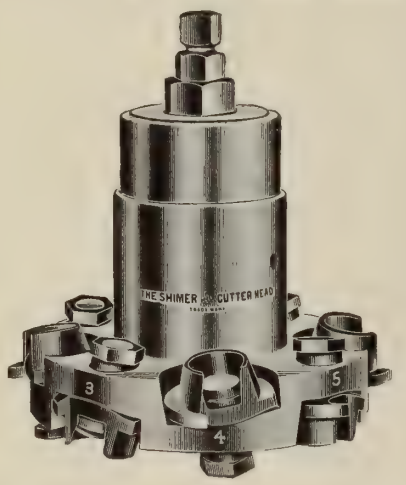
USE THE SHIMER CUTTER HEADS

For Flooring, Ceiling, Siding, Ship Lap, Jointing, Double Ceiling, Doors, Sash, Blinds, etc.

Made of steel Forgings, they represent the greatest possible strength in compact and workmanlike manner, embodying the vital principles of clearance to all leading Bit Points. The alternate and shearing effect of the cut reduces to a minimum the tearing-out tendency of cross-grained lumber. Cutters have exact shape in their exterior circles, and uniform product is maintained indefinitely without extra trouble or expense.



The Shimer Limited, with Expansion, Fig. 628. Groove Head with 8 Bits and self-centering and spindle clamping features. Price $36.23 each, complete.



The Shimer Limited in solid section, Fig. 625. Groove Head with 8 Bits and the self-centering and spindle clamping features. Price $33.50 each, complete.

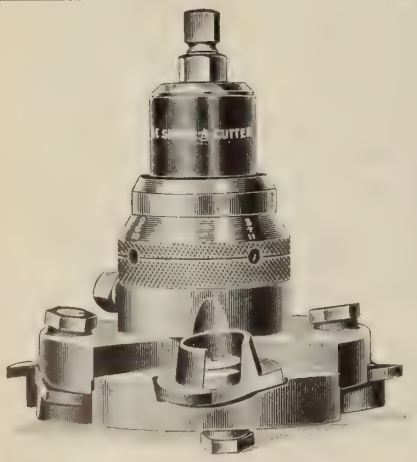
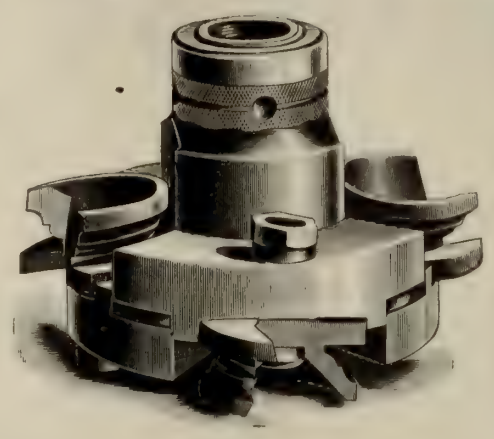


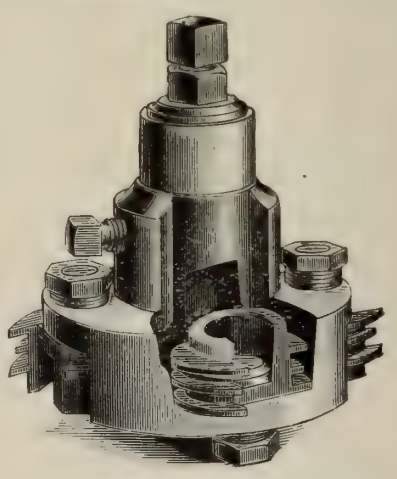
Fig. 203, Popular Expansion Groove Head with 4 bit seats, complete, net $20.48. Made also with 6 and 8 Bits to each Head.

The Shimer Door and Sash Heads



Save the filing to shape at each sharpening of the cutters. They are made per order, carry in their outline the perfect counterpart of the work, thus by simply filing the Bits and setting them to the gauge the fitting of the manufactured parts is assured.

A solid Door Head with Bits to work 1 to 1¼ inch Doors costs only $18.03, and an Expansion Head only $20.63. A solid Sash Head to mould 1 to 1¼ inch Sash, complete with Bits, costs only $16.91—an Expansion Head fitted out complete only $19.51. $62.87 will give you an excellent solid section outfit, including Door Cope Heads and Sash Cope Heads. If you want the very best with Expansion the cost will be only $68.07.



Double the Capacity of Your Matcher or Moulder By the use of the Shimer Double Ceiling and Double Flooring Heads.

Run your stock with double tongue and groove and then re-saw. 100 per cent gain in output for an investment of only $40.94 and upwards.

The Bits on the Shimer Double Heads mark the saw cut line of division on the stock so that the sawyer can at once detect any variation of the saw and correct it as the board is passing through.

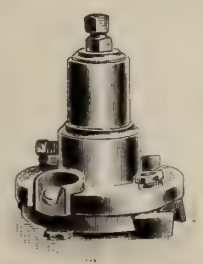
These Heads are not an experiment. We have made them for years and they are in daily use in the best mills of this and other countries. You will find them very complete and practical tools, carrying the Shimer guarantee to do as represented or no sale.

Heads for making Ship Lap

The Shimer Cutter Heads for Ship Lap are so proportioned in the Bits and their seats that a perfect draw cut is made. They work interchangeably with our matcher Heads and always produce good work.

Price, per set, complete, $33.64 to $38.48, according to thickness of cut.

Extra Bits for making Wainscoting on these Heads $1.95 each.



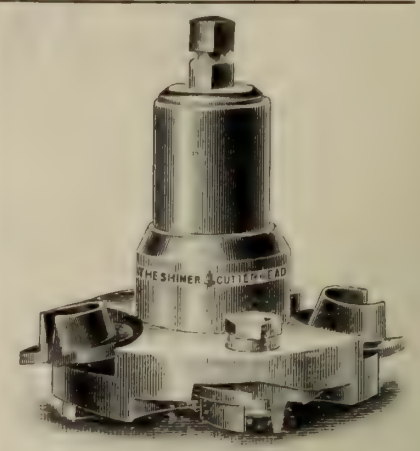
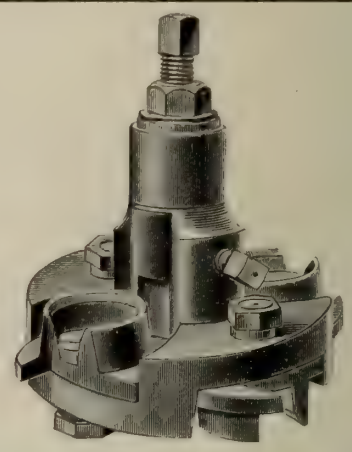
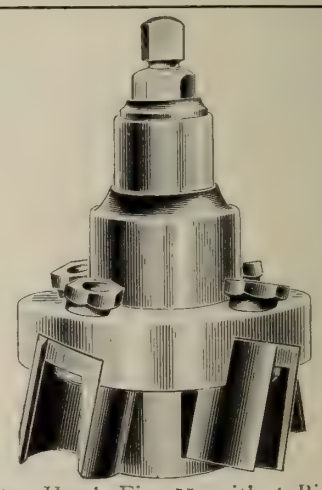


Fig. 23, a Popular Solid Groove Head with 4 bit seats, complete, $17.87. Also made with 6 or 8 Bits to each Head.



Groove Head, Fig. 2. For plain matching of tongue and groove joint, complete with Bits, $13.00.



Jointer Head, Fig. 55, with 4 Bits in line of work. Also made with 6 and 8 Bits to each Head. With 4 Bits $16.64.

Our Bedee Knives, recommended by users as the best thin steel knives on the market, can be furnished in any length or thickness on short notice. Write us about your requirements.

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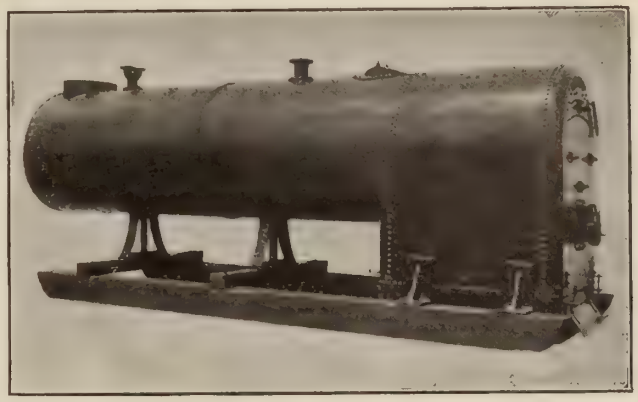

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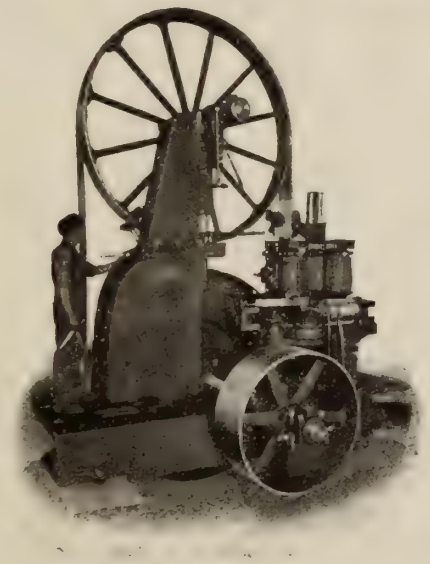

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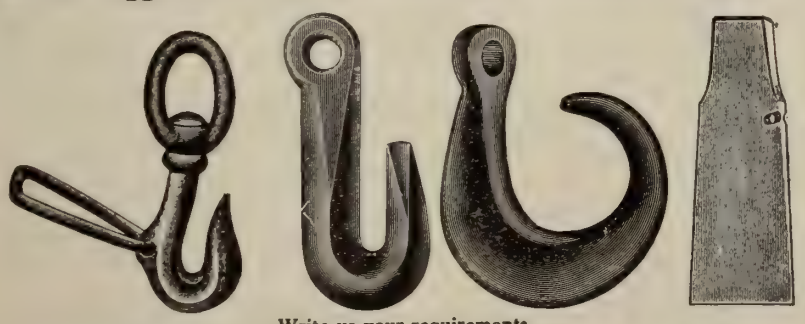

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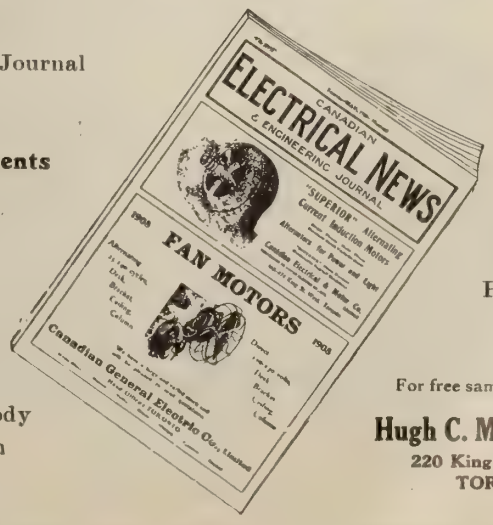

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No. 1 Moulding 8/4		58 00
No. 2 Moulding 5/4		47 00
No. 2 Moulding 6/4		47 00
No. 2 Moulding 8/4		47 00
No. 1 Barn 1 x 12		46 00
No. 1 Barn 1 x 6 and 8		34 00
No. 1 Barn 1 x 10		36 00
No. 2 Barn 1 x 6 and 8		30 00
No. 2 Barn 1 x 10		32 00
No. 3 Barn 1 x 6 and 8		23 00
No. 3 Barn 1 x 10		25 00
Box 1 x 6 and up		22 00
Box 1 x 10		23 00
Box 1 x 12		25 00
Box 1 x 13 and up		30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

White Ash		
1st and 2nd, 1 inch	40 00	42 00
1¼ to 2 inch	44 00	46 00
2½ to 4 inch	48 00	58 00
Strips	22 00	24 00
Common and culls	14 00	22 00

Black and Brown		
1st and 2nd, 6 inch up	40 00	42 00
Common good culls	14 00	20 00
1st and 2nd 6 inch and up, red.	40 00	42 00
1st and 2nd, white, 6 in. & up.	30 00	32 00
Common and good culls	16 00	18 00

Elm		
1st and 2nd, rock, 6 in. and up	34 00	38 00
Common and culls	16 00	20 00
1st and 2nd, soft, 6 in. and up	28 00	32 00
Common and culls	13 00	18 00

Maple		
1st and 2nd hard	26 00	30 00
Common and culls	14 00	22 00
1st and 2nd, soft	26 00	28 00
Common and culls	14 00	22 00

BOSTON, MASS.		
White pine uppers, 1 to 2 in.		100 00
Selects, 1 to 2 inch		90 00
Fine common, 1 in.		72 00
Fine common, 1¼ to 2 in.	74 00	75 00
No. 1 Cuts 1 in.		45 00
No. 1 Cuts 1¼ to 2 in.	58 00	60 00
No. 2 Cuts, 1 in.	35 00	37 00
No. 2 Cuts, 1¼ to 2 in.	45 00	48 00
Barn Boards, No. 1, 1 x 12	51 00	52 00
No. 1, 1 x 10		39 00
No. 1, 1 x 8		38 00
No. 2, 1 x 12	42 00	43 00
No. 2, 1 x 10	35 00	36 00
No. 2, 1 x 8	34 00	35 00
No. 3, 1 x 12	33 00	34 00
No. 3, 1 x 10	28 00	30 00
No. 3, 1 x 8	28 00	29 00
Canadian spruce boards		26 00
Spruce, 10 & 12 in. dimension.	26 00	27 00
Spruce, 9 in. and under dimen.		25 00
10 and 12 in. random lengths, 10 ft. and up	24 00	25 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 50	22 50
All other random lengths, 7" and under, 10 ft. and up	21 00	22 00
5-in. and up merchantable boards, 8 ft. and up, p 1s		21 50
Vermont spruce boards, matched		23 50
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		22 00

1⅝-in. spruce laths		4 50
1½-in. spruce laths		4 00

New Brunswick Cedar Shingles		
Extras		$4 25
Clears	3 85	3 90
Second clears		2 75
Clear whites		2 60
Extra 1s (Clear whites out)		1 65
Extra 1s (Clear whites in)	1 50	1 60
Red Cedar Extras, 16 in. 5 butts to 2-in.	3 80	4 20
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 35
Red Cedar Perfection, 5 butts to 2¼		4 90
Washington 16-in. 5 butts to 2-in. extra red cedar	3 80	4 10

The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30-in. maple, $3.50 per M. feet; 1/24-in. maple, $3.75 per M. feet; 1/20-in. maple, $4.00 per M. feet; 3/16-in 3-ply maple, sanded one side, 3½c per ft.; ¼-in. 3-ply maple, sanded one side, 4c per ft. All F.O.B. Jamestown, New York.

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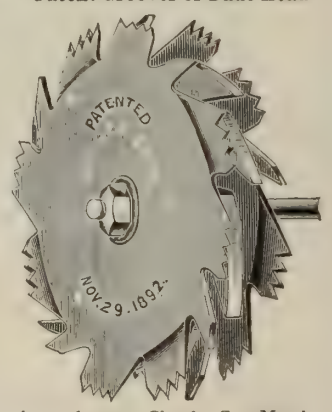
Rubber and Leather Belting, BEST BRANDS.
DISSTON "BEAVER" and SIMONDS CROSS CUT SAWS. PEAVIES and STOCKS, CHAIN, IRON and STEEL, SINGLE and DOUBLE BIT AXES, Etc,

Douglas & Co., Limited
Victoria Street, AMHERST, N. S.

HUTHER BROS.
Hollow Ground Combination Tooth Mitre Saw

For either Rip or Cross Cutting
Will cut equally as smooth in either Ripping, Cross-cutting or cutting at an angle of 45 degrees, with grain of wood.

Patent Groover or Dado Head



Can be used on any Circular Saw Mandre
For cutting any width groove from 1/8" to 2" wide. Will cut either with or across the grain (Sent on approval).

Allow us to quote Prices on Saws for any special work that you wish to do.
HUTHER BROS. SAW MFG. CO., Inc., ROCHESTER, N.Y.

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We guarantee that your horses will do more work and keep in better order on less feed if they get International regularly.

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Especially recommended for Sores, Bruises, Kicks, Inflammation and all flesh wounds.

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Will quickly expel all kinds of worms.

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Guaranteed to cure Colic in ten minutes.

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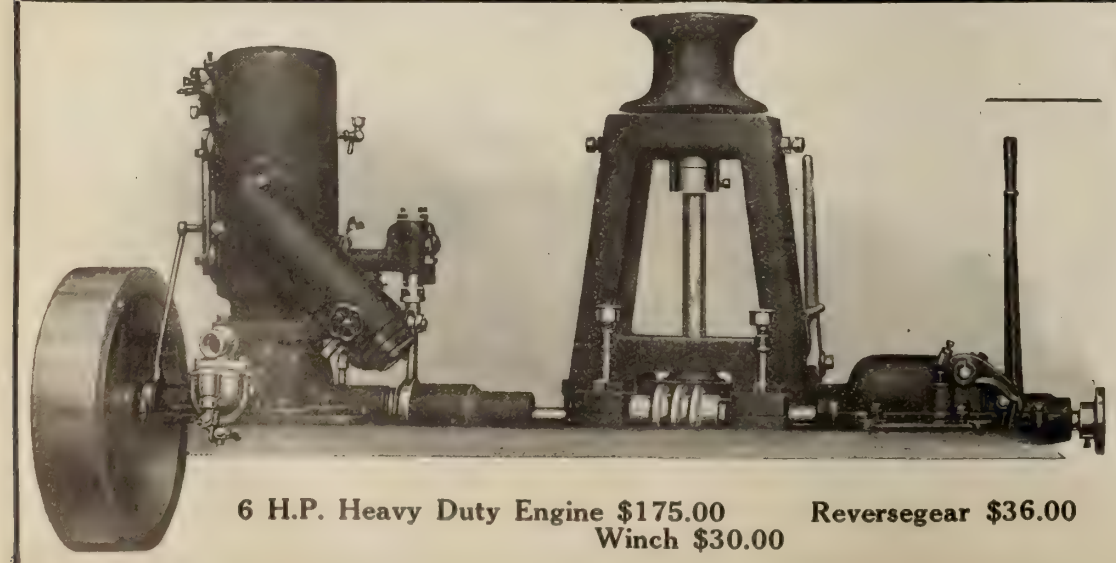

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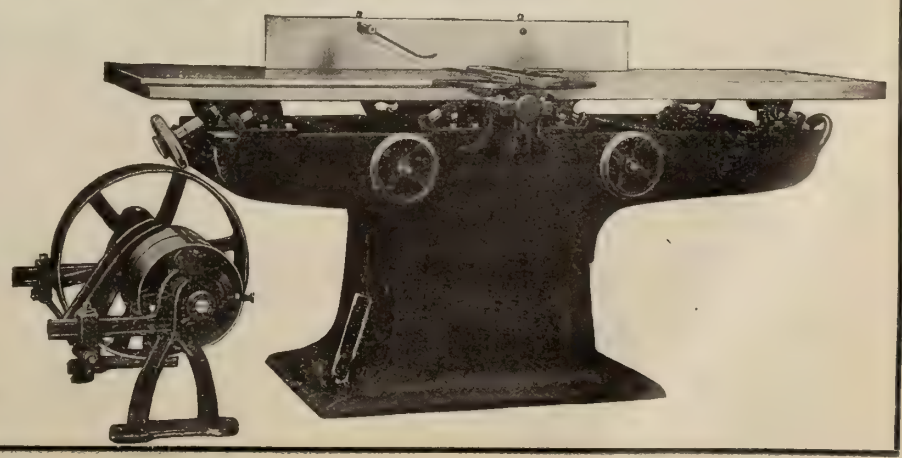

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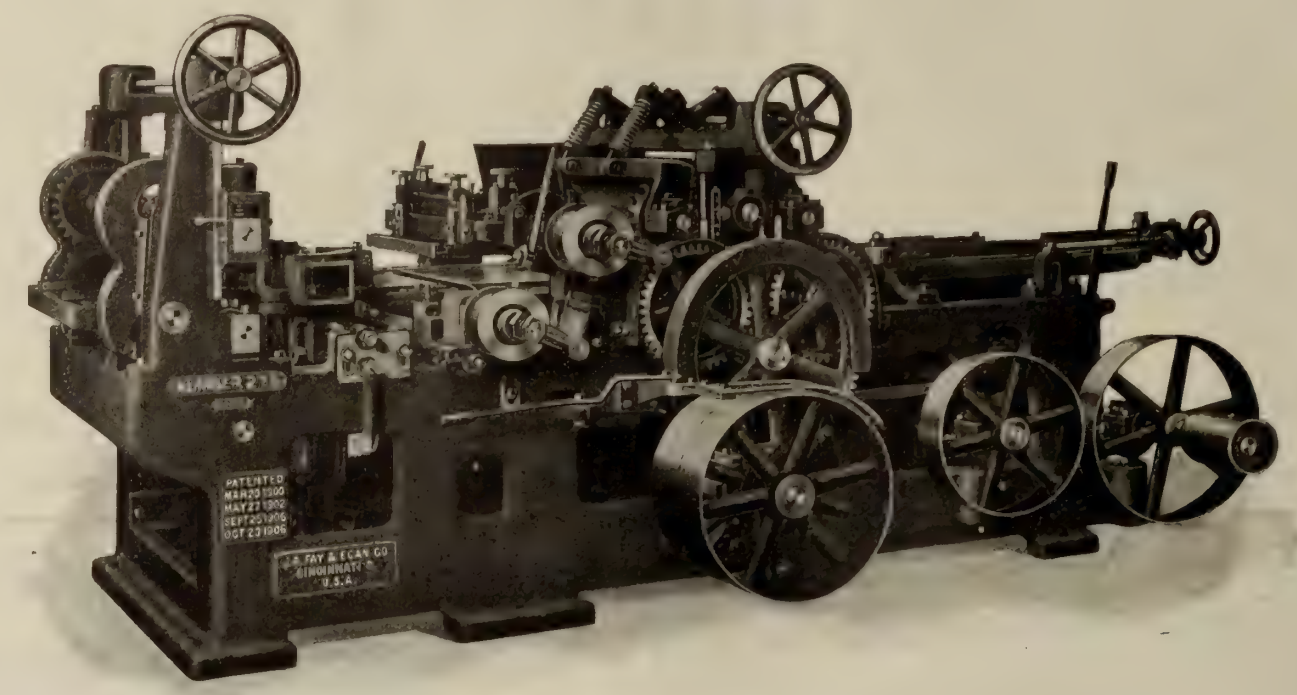

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Some Actual Results Obtained

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Gentlemen: We purchased one of your No. 275 Matchers, size 16 x 8, a little over a year ago, and have been running it continually ever since, working all sorts of material on it from ½-in. ceiling to sizing 16 x 8 timbers. In fact, most of the time it has been doing the work of a timber sizer and I must confess in all my 25 years of experience I have never seen its equal for the amount of work it will turn out. It has the most wonderful feed for its side, and I have run all makes of machines.

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We congratulate you on the development of such a machine and wish for you the hearty success you deserve. We are also well pleased with the other machines we purchased from you.

Yours very truly,
SHAW BROS. COMPANY,
By David Shaw, President.

Macon, Ga.

J. A. FAY & EGAN CO.,
Cincinnati, Ohio.

Gentlemen: This is to certify that I did run through one of J. A. Fay & Egan Co.'s Planers and Matchers, namely the No. 275, 24-in. 6-roll P. & M. the amount of 8,025,630 feet of roofers averaging 1-in. in thickness and 7-in. in width, during the year of 1911. The record is actual figures on our books and does not count stock sold in local market, amounting to about 75,000 feet. The machine has proven very satisfactory and we take pleasure in recommending the same.

W. B. GETTYS LUMBER CO.,
By W. B. Gettys, Mgr.

Zebulon, N. C.

J. A. FAY & EGAN CO.,
Cincinnati, Ohio.

Gentlemen: We are pleased to write you in regard to the No. 275 Planer and Matcher we purchased of you some time ago. We used this machine on a variety of work, ranging from ¼ x ½-in. soft wood to 3⅝ x 10½-in. oak and also 4¼ x 6⅝-in. hickory. We plane all this material on four sides, sometimes taking a ½-in. cut with the side heads on oak 3⅝-in. thick. A large percentage of the work done on this machine is planing and matching semi-circular tank staves, 1¼-in. x 4-in. wide. We find we can feed all the various kinds of material as fast as a man can keep the machine full, and machine appears to have a capacity greater than this on nearly all kinds of stock, including the tank staves. We are entirely satisfied with this machine.

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Battle Creek, Mich.

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—note in letters herewith; the first, shows a variety of work from ¼" ceiling of 16" x 8" timbers; the second large output on one kind of work; and third, some of the hardest work ever done on a Matcher.

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—if you use or need a general purpose matcher, let us tell you more about the No. 275, a Matcher, Double Surfacer, Floorer and Inside Molder combined.

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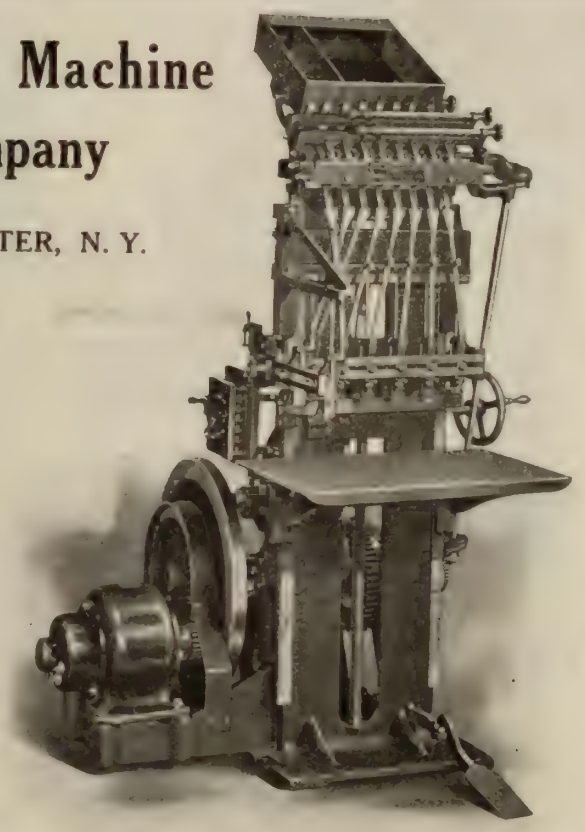

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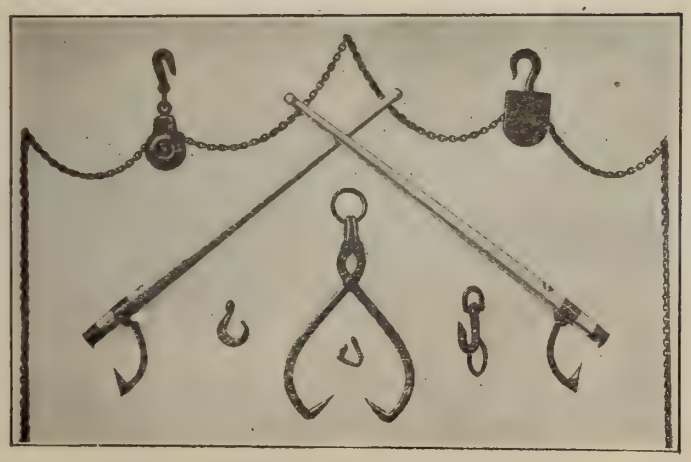


When ordering from your Jobber specify

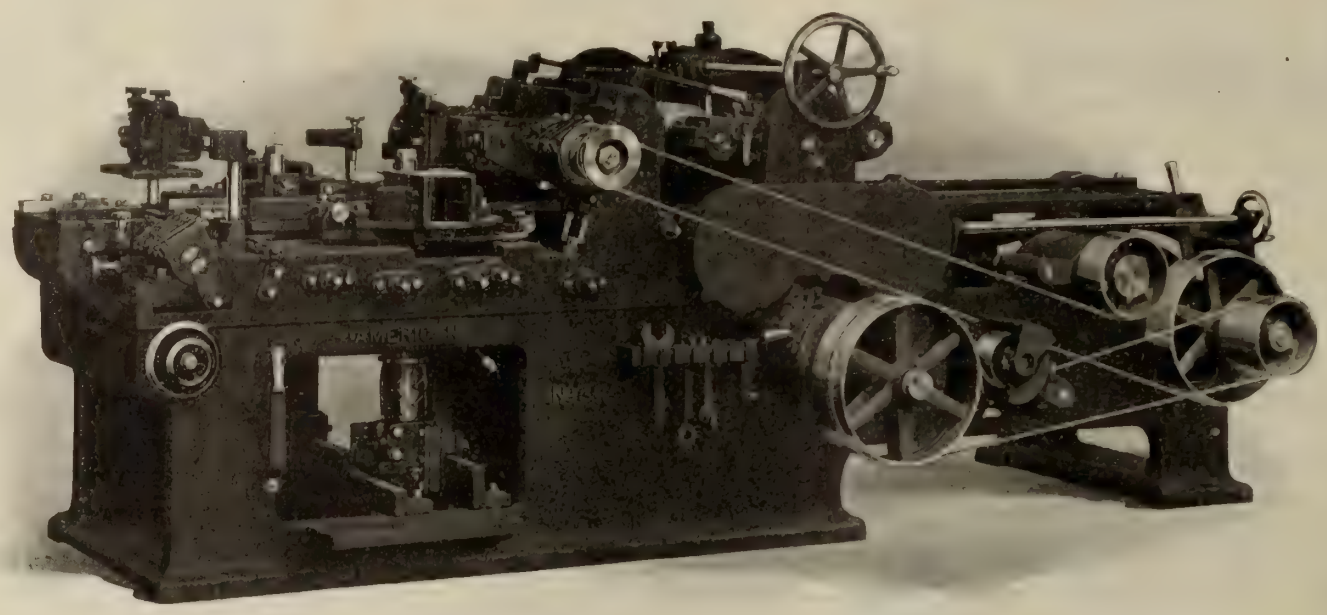
Pink's Lumbering Tools

and if they cannot supply them order direct, and you will get the best tool made

The Thomas Pink Co. Limited

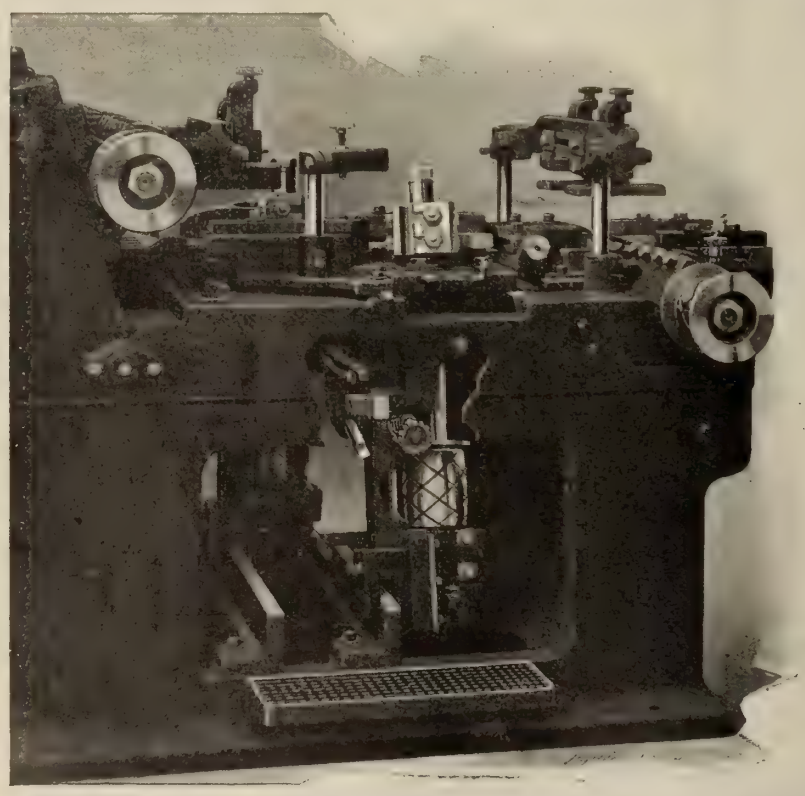
PEMBROKE, Ont., Canada

Manufacturers of the best line of Lumbering Tools in Canada



American *No. 34* Inside Moulder

This is a brand new machine. The general design and form of construction of the frame; the direct and simple system of gearing; the massive bed plate supporting the matcher legs; the side clamping boxes for both cutter heads and side head journals; the accurately fitted and easy adjustments throughout, are all features that make this the most up-to-date ***Inside Moulder*** on the market today.



The sectional view shows the angle adjustment of Matcher Legs, and the vertical adjustment of side spindles.

We have a handsome book which describes this machine fully. Let us send you one.

Sales Offices:
NEW YORK
90 West Street
CHICAGO
Sharples Building
NEW ORLEANS
Canal-La. Bank Bldg.

American Wood Working Machinery Co.

Executive and General Sales Office:
Rochester, N. Y.

Sales Offices:
PORTLAND, ORE.
First & Pine Streets
SPOKANE, WASH.
314 W. Pacific Ave.
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Makes It's Mark Vivid and Lasting

Marks that remain vivid and wear like iron are a real satisfaction to the man who handles lumber. The metallic pigments, like graphite, of DIXON'S LUMBER CRAYONS offer marvelous resistance to all kinds of weather conditions. Their marks are often visible after six months of severe exposure to sun and storms.

DIXON'S LUMBER CRAYONS

have always remained the recognized standard because of their one, uniform and dependable quality; their convenient and uniform shape and size and because of the careful selection of materials used in their manufacture. DIXON'S LUMBER CRAYONS are made in nineteen grades and colors, including black (six grades), red (two grades), blue (two grades), green, white, yellow, brown, terra cotta, violet, pink and orange. Some are made to fill particular needs—let us tell you more about them. Get acquainted.

Write for lithographed booklet No. 239, illustrated in colors.

Joseph Dixon Crucible Company
Jersey City, U. S. A.

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Forest Mapping and Surveying
Estimation of Timber and Working Plans — Men Experienced in Canadian Forests.

16 Centre Street
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Wear Like Iron

WE tan the leather these larrigans are made from and know they will stand all kinds of wet and rough usage when properly cared for. We put a counter stiffener in our larrigans and sew it in with the leg when soled and heeled—a very durable feature in our goods.

Next time you buy larrigans see that you ask for **"John Bull."**

R. M. Beal Leather Co. Limited

LINDSAY, Ontario

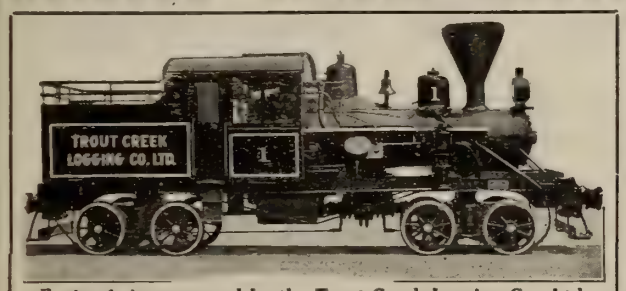
Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

HEISLER GEARED LOCOMOTIVES



Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Lake, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

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Lumber Horses

We are specializing this season in an extra fine line of Lumber Horses, guaranteed to be young and sound in every particular, and of extra weight and quality.

Consignments of heavy horses received regularly from the best shippers of heavy horses in Ontario.

Clean and sanitary barns under Government Inspection.

Loading chutes at Barn Doors via all railways,

We can supply your wants on the very shortest notice.

WRITE US YOUR REQUIREMENTS

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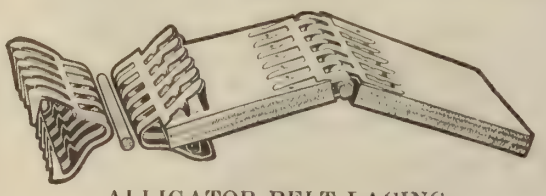
"LIMESTONE" Wood Split Pulleys

The Strongest Wood Pulley Made. NAILED and GLUED

We carry the largest stock of Wood Pulleys in the Country.



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Also Lukenheimer Valves, Lubricating Oils and Greases, Packings, Hose, Paints, etc.

Rush Orders Promptly Filled. **Belting in Stock 1-in. to 20-in.**

LARGE BELTS A SPECIALTY

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This Watchman's Clock Pays For Itself

STATION

The complete cost of

The Hardinge Watchman's Clock and Patrol System

is entirely offset by the reduction of risk and the consequent drop in insurance rates. Any number of keys or stations can be installed with one watch—and all absolutely fool proof. Full details and prices given on request.

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Wire Rope

Special Alligator Ropes with proper attachments

Saw Carriage Ropes Haulage Ropes

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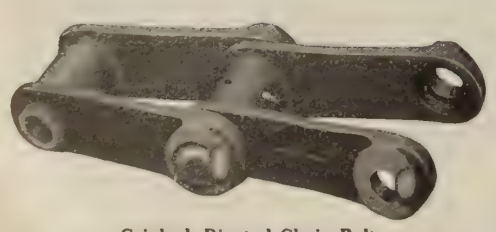

Griplock Riveted Chain Belt

Cross Section of Griplock Riveted

No More Breakdowns—No More Delays

This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock.** **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

Sold by **The A. M. ELLICOTT CO., Montreal, Que.**

Elevating, Conveying and Transmission of all kinds a specialty

Wire Rope

When you need wire rope for any purpose whatever, it will surely pay you to communicate with us.

We have in stock all kinds—in all sizes—in any length.

Should your requirements be special—we can make rope to exactly suit your needs. We know how, as we have had years of experience.

Wire Rope Fittings of all Kinds

The Dominion WIRE ROPE Co., Limited

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MAPLE LEAF BELTING

Strong
Waterproof
True
Running

For
Indoor or
Outdoor
Work

¶ Maple Leaf is the most economic and efficient belting for power transmission and conveying, etc.

¶ It costs only half as much as leather and 25 per cent less than good rubber belting.

Write for sample and prices to the sole manufacturers

DOMINION BELTING CO.

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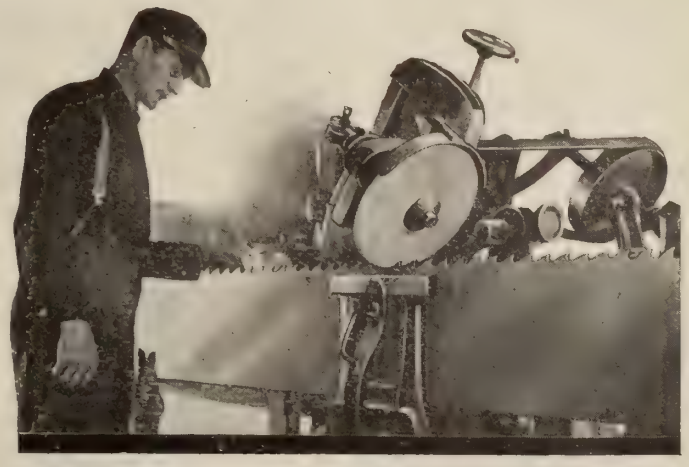


The Proof of the Wheel is in the Trial

If you are not using Aloxite Wheels in your mill just let us send you a wheel for trial.

Give it a good fair chance to prove its worth—let your filer learn for himself that the Aloxite Wheel will cut fast and clean, without burning or case hardening the saw—let him test the wheel for durability and for its ability to hold its shape.

These are just the qualities that have recommended Aloxite Wheels to hundreds of filers—the qualities that will prove to **your** filers that Aloxite Wheels will give better gummed saws in less time—at less wheel cost.

May we have your Trial Order?

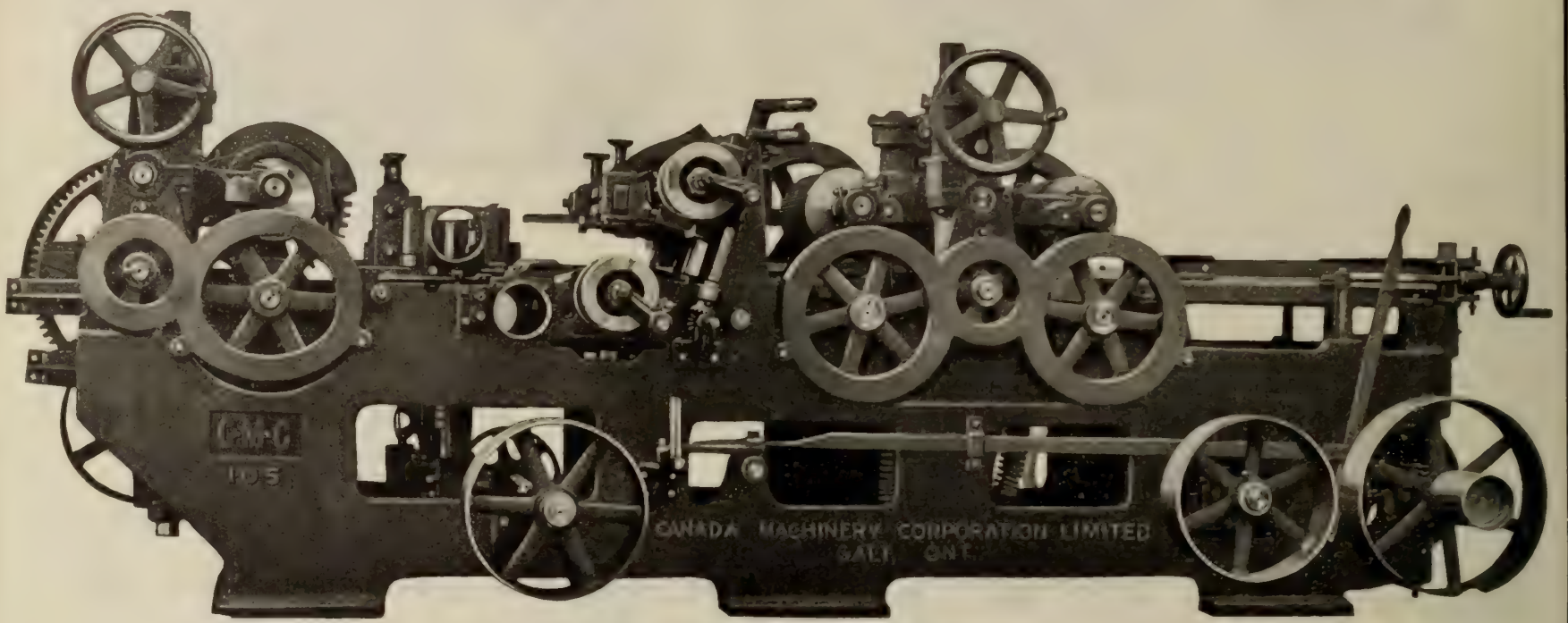
The Carborundum Co.

Niagara Falls, N.Y.

No. 105 MATCHER

C.M.C.

No. 105 MATCHER



C. M. C. No. 105 Medium Weight Matcher.

Our No. 105 Matcher is not our heavy duty fast feed machine but is a high grade medium weight matcher. It is a general purpose machine and for work up to 100 feet per minute ; is without an equal.

It is supplied with five rates of feed from 45 to 100 feet per minute.

Bulletin No. 105 fully describes this machine and will be gladly sent on request.

Have you our complete catalogue? If not let us send you one.

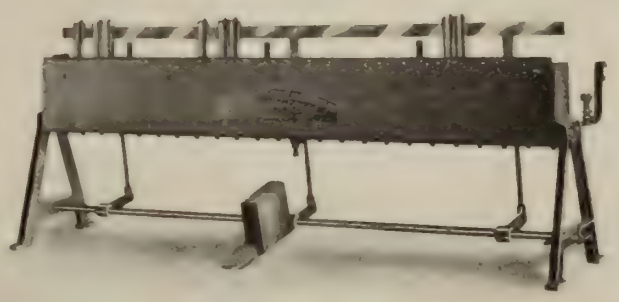
We Make the Most Complete Line of Woodworking Machinery in Canada

Canada Machinery Corporation Limited

GALT, ONTARIO

Look at the Picture!

Look at the Names!



The picture is of our stile gluer.

The names are of some of its users. Some of them have sent in duplicate and triplicate orders unsolicited. Are they the kind that would do that if the machine was not a money saver?

It Glues the Whole Stile in a Second.

Foster-Lotham Mills, Oshkosh, Wis.; Morgan Company, Oshkosh, Wis.; R. McMillen Co., Oshkosh, Wis.; Radford Bros. & Co., Oshkosh, Wis.; Curtis & Yale Co., Wausau, Wis.; Curtis Bros. & Co., Clinton, Iowa; Estate James Davidson, Ottawa, Ont.; Roach & Musser Sash and Door Co., Muscatine, Iowa; Allen Mfg. Co., Shreveport, La.; Rock Island Sash & Door Co., Rock Island, Ill.; Riverside Lumber Co., Calgary, Alta.; Rat Portage Lumber Co., Winnipeg, Man.; Cream City Sash & Door Co., Milwaukee, Wis.; Enochs Lumber & Mfg. Co., Jackson, Miss.; United Sash & Door Co., Wichita, Kans.; Hardwood Products Co., Neenah, Wis.; Vance Redwood Lumber Co., Eureka, Cal.; Chehalis Fir Door Co., Chehalis, Wash.; Farley & Loetscher Mfg. Co., Dubuque, Ia.; Robinson Mfg. Co., Everett, Wash.; Southern Mfg. Co., Gadsen, Ala.; Waco Sash & Door Co., Waco, Texas; Pacific Mfg. Co., Santa Clara, Cal.; Standard Lumber Co., Sonora, Cal.; Geo. W. Smith Co., Philadelphia, Pa.; Fox Bros. Mfg. Co., St. Louis, Mo.; Weed Lumber Co., Weed, Cal.; Cedar Creek Mill Co., Brewton, Ala.

MANUFACTURED BY

The Dauber-Bell Machine Co., Oshkosh, Wis.

Dowel Door and Chair Machinery

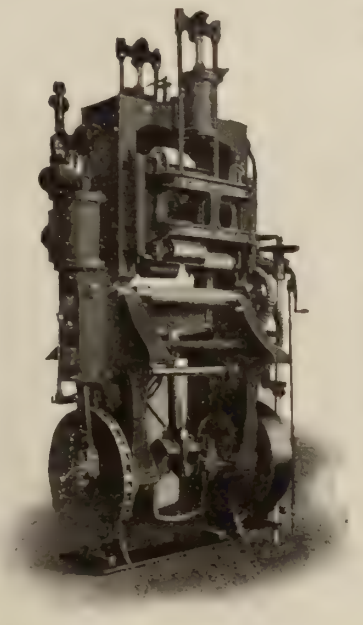
WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips **Cedar Siding** **Shiplap**
Silo Stock **Door Stock** **Box Lumber**
Boards

from cants and flitches, from either hard or soft woods.



ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES—taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install ecomony by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

Think it Over Carefully, then Write us for Details.

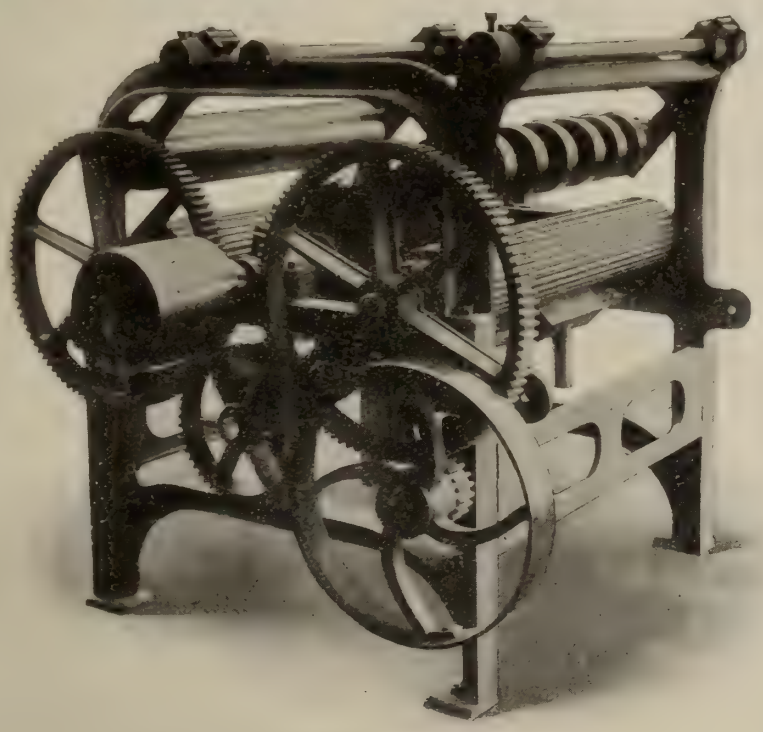
"The Gang cannot Overslab."

Wickes Brothers

410 White Building - - SEATTLE, WASH.

Head Office. Saginaw, Michigan, U. S. A.

"Everything for the Saw Mill From the Motive Power to the Trimmer"



Our Two Saw Edger

We can supply a complete saw mill equipment and all Mowry made. Every machine is complete, simple, and a model of good workmanship.

If you are contemplating the installation of new machinery for winter and spring operations it will cost you nothing to enquire into the merits of our equipment.

Repairing saw mill machinery is also in our line.

May we send you our literature?

Mowry & Sons

Gravenhurst - Ont.

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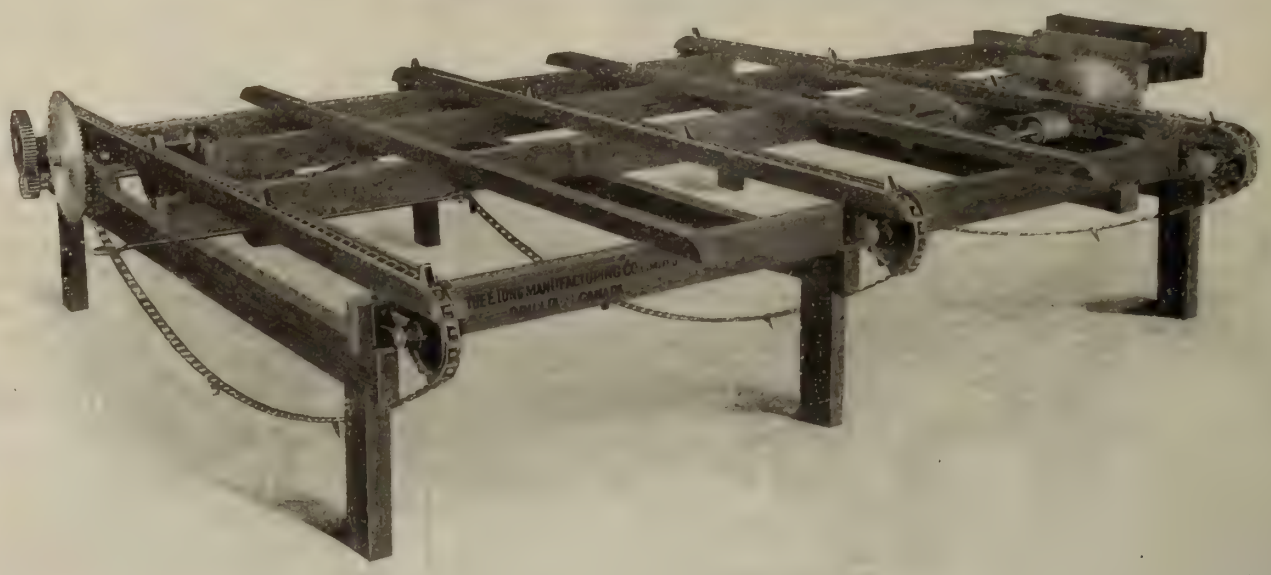
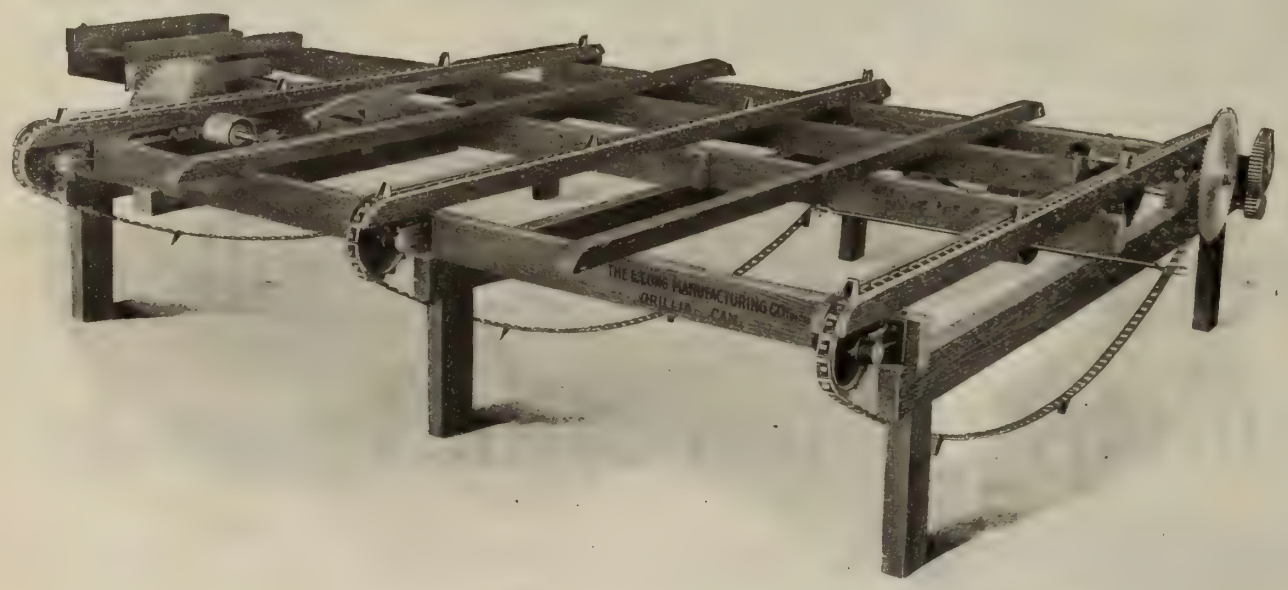
THE E. LONG MANUFACTURING Co
SAW MILL MACHINERY
ORILLIA, CANADA

It will greatly increase the value of your output.

It will do a maximum amount of work with a minimum amount of power.



No. 1, Two Saw, Right Hand Trimmer



No. 2, Two Saw, Left Hand Trimmer

It will sell your lumber, when untrimmed lumber will not sell.

It will pay for itself in less than a season.

We build this style trimmer in two sizes, for Portable mills and mills of medium capacity, also automatic trimmers for mill of heavy capacity. Full information on application.

Mill Plans, Specifications and Estimates on complete mills furnished

The E. Long Manufacturing Co., Limited

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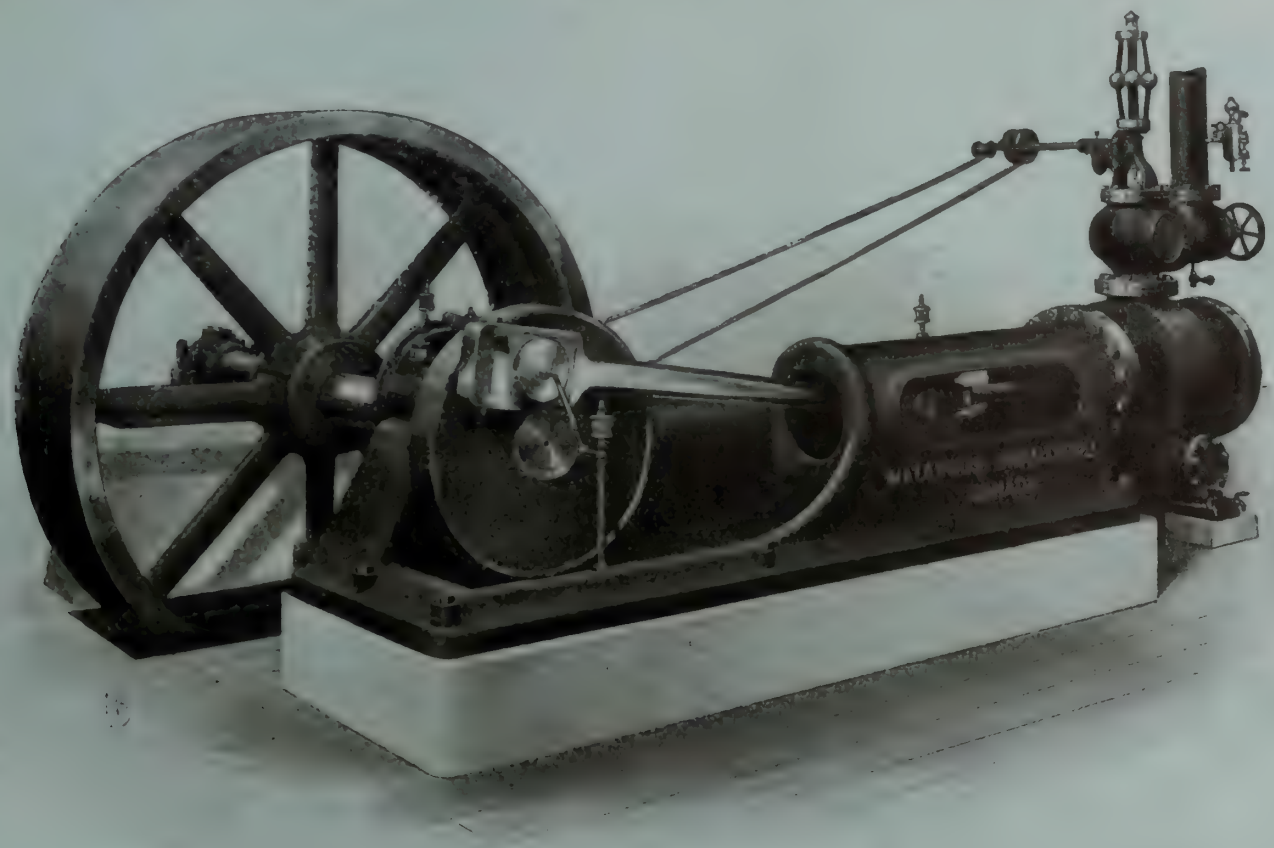
A "Heavy" Duty Engine for Sawmill Work



The Waterous Side Crank

THIS Engine is especially built for Sawmill work. It combines strength and simplicity with the ability to be on the job all the time.

There is nothing to get out of order. Parts are few, are sturdily built, and are easily gotten at for oiling and overhauling.

With an occasional wipe-down and a dose of oil on the wearing surfaces, the engine will run from whistle to whistle without a hitch.

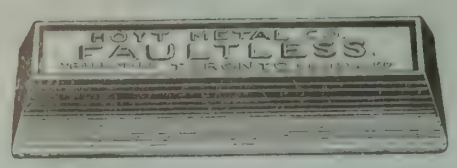
For an absolutely reliable engine that will stand up to severe service under all sorts of conditions, we can honestly recommend the "Heavy Duty Side Crank."

Built in sizes from 60 H.P. to 600 H.P.

Full particulars, prices and specifications on request

The Waterous Engine Works Co., Ltd.

BRANTFORD, CANADA



$5,000,000.00

worth of mixed metals is what we market every year

PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.

Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

We solicit your patronage

HOYT METAL CO., Toronto, Canada

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Staved Columns
Veneered Doors
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THE J.C. McLAREN BELTING CO. OAK EXTRA TANNED EST. 1856

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The J.C. McLaren Belting Co.
Limited

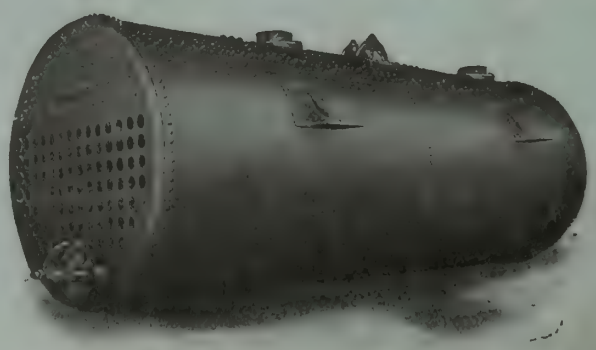
General Mill Supplies MONTREAL

The John Inglis Company, Limited

Engineers & Boiler Makers

"Inglis" Boilers are the Best

Write us for quotations



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